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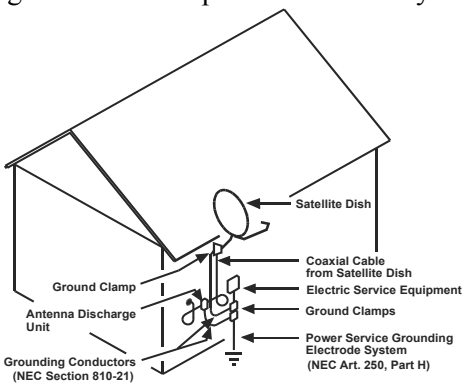
Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Use only attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as the power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Note to Satellite TV System Installer: This reminder is provided to call the satellite TV system installer's attention to Article 820-40 of the *National Electrical Code* (NEC) that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building as close to the point of cable entry as practical.


Satellite Dish
Coaxial Cable from Satellite Dish
Electric Service Equipment
Ground Clamps
Power Service Grounding Electrode System (NEC Art. 250, Part H)
Ground Clamp
Antenna Discharge Unit
Grounding Conductors (NEC Section 810-21)

Safety Tips

- Unplug the receiver from the AC power outlet *before* cleaning.
- The use of accessories or attachments not recommended by the receiver manufacturer will void the *Limited Warranty.*
- Do *not* place the receiver in an enclosure such as a cabinet without proper ventilation.
- Do not install the receiver in any area where the temperature can be less than 40°F or more than 113°F.
- Do *not* stack the receiver on top of or below other electronic devices.
- Operate the receiver using *only* the type of power source indicated on the marking label. Unplug the receiver power cord by gripping the power plug, *not* the cord.
- Do *not* overload wall outlets or extension cords, as this can result in a risk of fire or electrical shock.
- *Never* insert objects of any kind into the receiver through openings, as the objects may touch dangerous voltage points or short out parts. This could cause fire or electrical shock.
- *Make sure* that the outdoor parts of the antenna system are grounded in accordance with local, state, federal, and *National Electrical Code* (NEC) requirements.
- Do *not* locate the antenna near overhead light or power circuits, or where it can fall into such power lines or circuits. When installing the antenna, take *extreme* care to avoid touching such power lines or circuits, as contact with them can be *fatal*.
- Do *not* attempt to service the receiver yourself, as opening or removing covers may expose you to dangerous voltage, and will void the *Limited Warranty.* Refer all servicing to authorized service personnel.
- Use an outlet that contains surge suppression or ground fault protection. For added protection during a lightning storm, or when the receiver is left unattended and unused for long periods of time, unplug the power cord from the wall outlet, disconnect the lines between the receiver and the antenna, and disconnect the telephone line. This will provide some protection against damage caused by lightning or power line surges.

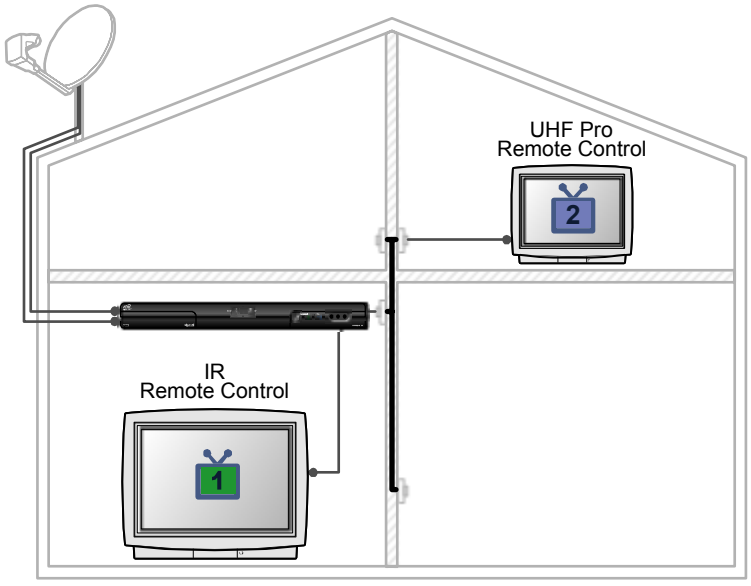
Chapter 1

Introduction

Welcome to DISH Network

Congratulations on choosing DISH Network. You are about to experience the excitement and convenience of Direct Broadcast Satellite (DBS) service, which delivers the very best picture and sound quality. DISH Network consistently provides state-of-the-art products and satellite-delivered services — with high performance, ease of operation, and a wide variety of entertainment options.

About this Receiver



To gain a better understanding of your DISH Network satellite receiver, look at the picture above. This receiver is a two-tuner satellite receiver that allows you to watch different programs in two locations:

- Nearby TV - Programming from the receiver is delivered to the TV near the receiver using short audio/video cables.
- Remote TV - Programming from the receiver is delivered to a TV located in another room using existing in-home coaxial cable.

Two remote controls come with your receiver:

- An Infrared (IR) remote to control programming for the nearby TV. This remote is labeled with a green number 1, which matches similar markings on the receiver output connections and the menus for the nearby TV.
- An Ultra-High Frequency Pro (UHF Pro) remote to control programming to a remote TV. This remote is labeled with blue number 2, which matches the similar markings on the receiver output connections and the menus for the remote TV.

Overview

***Before* you use your satellite receiver**, you need to install the system or have it installed by a professional technician. For a professional installation, please call the Customer Service Center at 1-800-333-DISH (3474). If you install the system yourself, use the instructions in *Chapter 2*.

A vital part of the installation is to set up the receiver to get the latest software from the satellite signal. If you are installing a new system and follow the instructions in *Chapter 2*, your receiver will automatically get this software.

For information on the receiver and its installation, read *Chapter 2, Receiver Description and Installation* beginning on page 13.

For information on any specific feature or function, read *Chapter 3, Using The System* beginning on page 37.

For information on assembling and installing a dish antenna, read *Chapter 4, Dish Antenna Installation* beginning on page 85.

If you have a problem operating the system or receive an error message, use the *Troubleshooting Tables* beginning on page 101.

Tips

In the margins of pages throughout this guide are tips and other information to make using your satellite receiver easier.

Conventions

To make it easy for you to use this guide, we use the following conventions.

- The names of remote control buttons are all uppercase.
  Example: Press the SAT button.
- Menus and options that appear on the TV screen are in bold type.
  Example: Open the **Program Guide**.
- *Select* means to move the highlight to an on-screen option or choice in a list and press the SELECT button on the remote control.
  Example: Select the **Locks** option.
- Connections on the back of the receiver are in small capital letters.
  Example: **SAT IN**

- Where this guide mentions *nearby TV*, it refers to the TV near the receiver. The nearby TV receives TV1 menus and programming from the receiver's TV1 outputs and is connected using short audio/video cables.
- Where this guide mentions *remote TV*, it refers to the cable-ready TV(s) located in rooms away from the receiver. The remote TV receives TV2 menus and programming from the receiver's TV2 outputs through your in-home cable system.
- Where this guide mentions *remote control*, it refers to either Remote Control 1 when viewing the nearby TV or Remote Control 2 when viewing the remote TV(s). If a specific remote control must be used, this guide will refer directly to Remote Control 1 or Remote Control 2.

Fixed Images

On some TVs, the presence of fixed images for extended periods of time may cause them to be permanently imprinted on the screen. Consult your TV user guide for information on whether this is a problem for your TV, what operating/viewing restrictions apply to avoid this problem, and associated TV warranty coverage.

DISH Network Logo

Whenever the receiver's outputs are turned off using the remote control or front panel POWER buttons, you will see the DISH Network logo moving around on your TV screen. This feature is included with your receiver to assure you that the connections between your receiver and TV(s) is not lost. Press the blank POWER or SELECT button on the remote control to resume watching satellite TV programming. Make sure you are using the correct remote (see page 16 for details).

Note: This logo is displayed on all TV1 and TV2 outputs except the **CH 3–4 OUT**. So if your nearby TV is connected using the **CH 3–4 OUT**, this logo will not be displayed.

Getting Started

After your system has been installed, order and watch your programming using the following steps:

Step 1: Ordering Your Programming

1. Using a remote control, press SAT and then press the blank POWER button. Make sure the TV is also on.

   Note: If you see the DISH Network logo displayed on your TV screen, press the SELECT or blank POWER button on the remote control to view satellite TV programming.

2. Press GUIDE.

   You will see that some channels in the **Program Guide** appear in white. These channels can be viewed immediately. However, many channels will be in red. You cannot view these channels until you order programming.

3. Press the SYS INFO button on the remote control to display the **Important System Information** screen.

4. Call the Customer Service Center at 1-800-333-DISH (3474). A customer service representative will help you start DISH Network programming on your system and will discuss the various programming packages available.

5. Choose a package and the representative will authorize your programming.

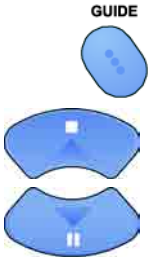
6. Press SELECT to close the **Important System Information** screen.

7. Wait a few minutes and the channels you purchased will turn from red to white, and can now be viewed.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

Step 2: Finding Programs To Watch

1. Press the GUIDE button.



2. When the **Program Guide** opens, use the UP or DOWN ARROW to view information on other channels. The channels for the programming you ordered should be shown in white and are available for viewing. After you have highlighted a current program in the **Program Guide**, press SELECT to watch it.

Tip: The Program Guide provides a complete listing of all programs available on all channels, including those that are not in your subscription (these channels have red backgrounds).

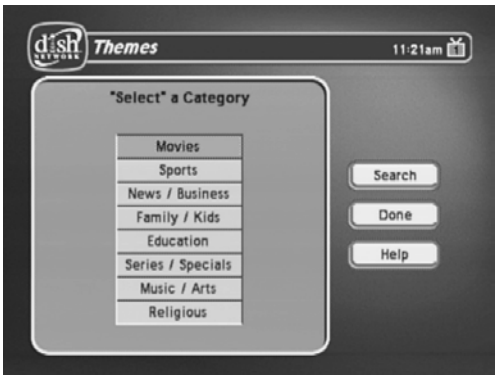
Quick Tour of Basic Features

This tour guides you quickly through a number of basic satellite receiver features accessible directly from the remote control without using menus. For more detailed information about each feature, see *Chapter 3*, *Using the System*.

1. Make sure the TV is on.
2. Press the UP or DOWN ARROW button to change channels.

3. Press the RECALL button to go back to the last channel you watched.

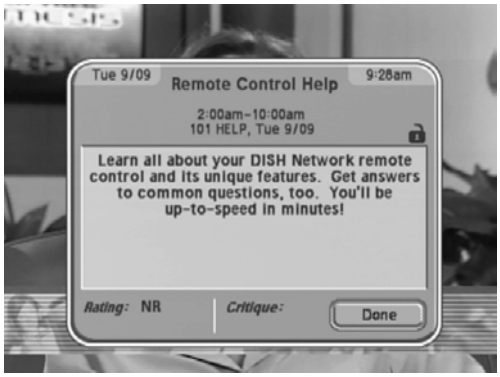
4. Press the THEMES (LEFT ARROW) button to open the **Themes and Search** menu. This menu allows you to search for programming by themes (movies, sports, and more) or by key words used in the programming information.



5. Select **Sports**.

6. Press the VIEW TV button to go back to watch a program.

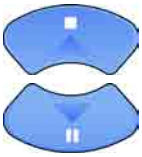
7. Press the INFO button to see information about the program.


Tue 9/09
Remote Control Help
9:28am
2:00am-10:00am
101 HELP, Tue 9/09
Learn all about your DISH Network remote control and its unique features. Get answers to common questions, too. You'll be up-to-speed in minutes!
Rating: NR
Critique:
Done

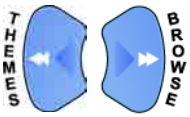
8. Press the CANCEL button to go back to watch the program.

9. Press the BROWSE (RIGHT ARROW) button to open the **Browse Banner**. The **Browse Banner** shows information on a program we're watching at the top, and information on two other programs at the bottom.

10. Press the UP or DOWN ARROW button to change the channel information you see at the bottom of the TV screen.



11. Press the RIGHT ARROW button to highlight the program coming on next at the bottom. Press the LEFT ARROW button to go back to the program on now.



12. Press the VIEW TV button to clear the **Browse Banner** from the TV screen and to go back to watching a program.

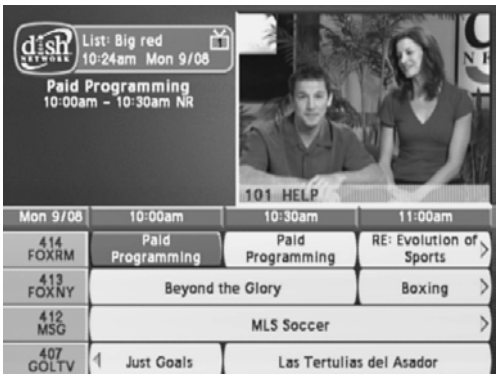
Quick Tour of the Menus

This tour guides you quickly through the basic features available through the **Main Menu**. See *Chapter 3*, *Using the System* for more information about these and other features.

1. Press the remote control MENU button to open the **Main Menu**.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

2. Press the 1 button to select the **Program Guide** option on the **Main Menu**. This opens the **Program Guide** on the TV screen.



You can use the **Program Guide** to find and select a program to watch. For now, though, go on with this tour.

3. Press the MENU button to go back to the **Main Menu**.

4. Press the 2 button to select the **Themes and Search** option on the **Main Menu**. This menu allows you to search for programming by themes (movies, sports, etc.) or by key words used in the program information.

5. Press the MENU button to go back to the **Main Menu**.

6. Press the 3 button to select the **Customer** option. This menu provides convenient access to your DISH Network account to review your statement, pay your bill, upgrade programming, and more.

CUSTOMER SUPPORT
Add Channels 1
View Your Statement 2
Pay Your DISH Network Bill 3
Frequently Asked Questions 4
Exit 0
Welcome to DISH Network's Customer Support Center.
Please make a selection to continue.

7. Press the 0 button to go back to the **Main Menu**.

8. Press the 4 button to select the **Dish Home** option. You can order channels, check the news and weather, and even play games.

9. Press the 0 button to go back to the **Main Menu**.

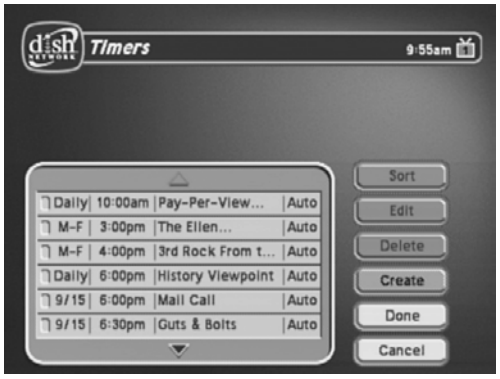
10. Press the 5 button to select the **Locks** option on the **Main Menu**. This menu allows you to apply password-protected locks on programming based on rating, or even on a channel-by-channel basis.

11. Press MENU to go back to the **Main Menu**.

12. Press the 6 button to select the **System Setup** option on the **Main Menu**. Use this menu to set up the system the way you want.

13. Press MENU to go back to the **Main Menu**.

14. Press the 7 button to select the **Timers** option on the **Main Menu**. This menu is used for creating and changing timers used to trigger automatic channel changes, reminders, or VCR recordings.



15. Press MENU to go back to the **Main Menu**.

16. Press the 8 button to open the **Favorites** menu. This menu allows you to set up lists of your favorite channels to make finding what you want to watch more convenient.

17. Press MENU to go back to the **Main Menu**.
18. Press the VIEW TV button to go back to watching a program.

About Satellite Television

Satellite television uses a satellite in a stationary orbit over the Earth to deliver television and audio programming. This type of orbit enables the satellite to stay aligned over one place on the surface of the Earth.

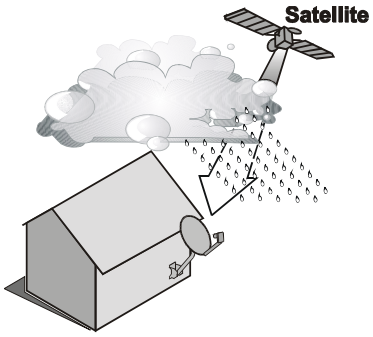
Once the satellite dish is aimed at the satellite, the dish does not have to move to follow it.

Satellite Signal Quality

Rain and Snow Fade

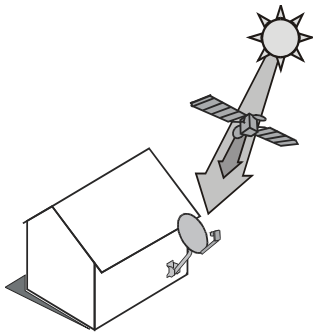
Heavy rain, snow, or cloud cover can block the satellite signal, which can interrupt your programming service. By aiming the satellite dish to get the strongest signal during installation, you can help prevent rain and snow from interrupting the signal. Your service will return after the weather condition has passed.

Tip: If you lose your picture, it's most likely due to heavy rain, snow or snow build-up on your dish.



Solar Interference

Twice a year, the sun moves to a position behind the DISH Network satellite as it orbits the Earth. The exact time of the year that this occurs varies, depending on the location, but it is near the beginning of spring and again near the beginning of autumn. The period of solar interference lasts for a few minutes at about the same time everyday for a few days during the spring and autumn, so do not be alarmed when it happens.

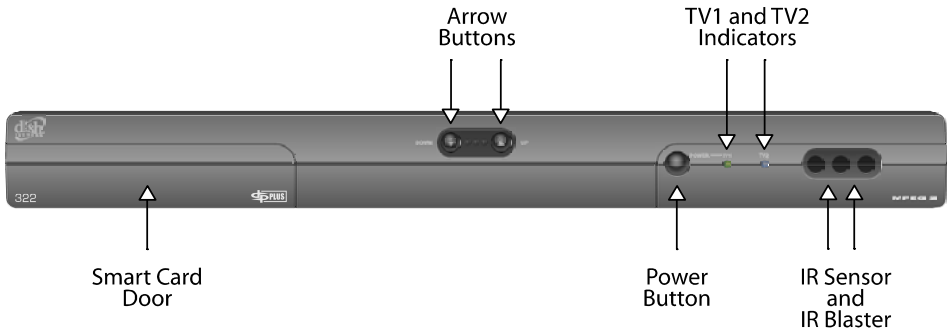


This is an unavoidable natural event for all television involving the use of satellites and has an adverse effect on many program providers. During this period, you will not be able to see programs on DISH Network. Once the sun has moved from behind the satellite, the programs will reappear.

Chapter 2

Receiver Description and Installation

Receiver Front Panel



Smart Card Door

Behind this door is a slot for a future smart card. No smart card is included with this receiver.

Arrow Buttons

Use the ARROW buttons to change channels on the nearby TV.

Power Button

Press the POWER button to turn the TV1 programming on or off to the nearby TV.

TV1 and TV2 Indicators

- When the green TV1 indicator is on, the receiver is providing programming to the nearby TV through the TV1 output connections.
- When the blue TV2 indicator is on, the receiver is providing programming to the remote TVs through the TV2 output connections.

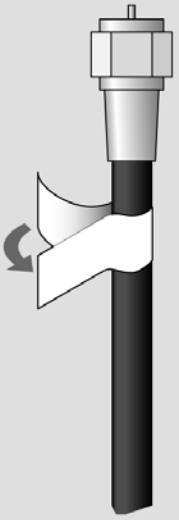
  Note: If you see the DISH Network logo displayed on your TV screen, press the SELECT or blank POWER button on the remote control to view satellite TV programming.

IR Sensor and IR Blaster

The INFRARED (IR) SENSOR receives IR signals from Remote Control 1. The IR BLASTER transmits IR signals to control a VCR to perform automated recordings.

Receiver Back Panel

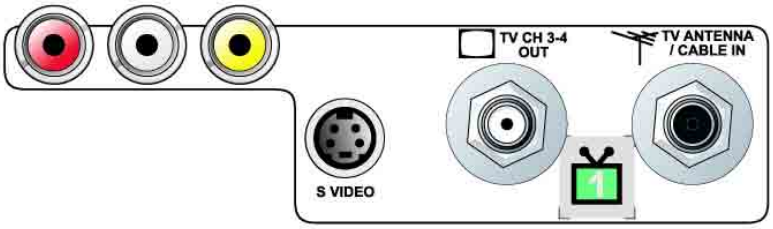
Tip: The six coaxial connections on the back of your receiver are color coded to make the connectors easy to identify. Inside the front cover of this guide are stickers that are color coded the same way as the coaxial connections. See the installation instructions starting on page 19 for information on how to use the stickers that go on the coaxial cables.



The receiver connections on the back panel are placed in three groups:

- **TV1 Connections** - Use these connections with the nearby TV.
- **TV2 Connections** - Use these connections with the remote TV(s).
- **Other Connections** - Use these connections with the dish antenna, UHF antenna, and phone line.

TV1 Connections



The following connections provide TV1 menus and programming to the nearby TV.

TV CH 3-4 OUT

The **CH 3-4 OUT** connection provides good quality video and mono (non-stereo) audio to your nearby TV. Use a coaxial cable to make the connection. The **CH 3–4 OUT** connection is color coded white.

RCA Out

The **RCA** audio/video outputs provide high quality picture and stereo sound to the nearby TV (if your TV has these connections). Use an RCA-type cable assembly to make the connection. If the TV has only one input for this type of audio, connect it to the right (R) phono (RCA) audio output on the receiver.

S-Video Out

The **S-VIDEO** connection provides the highest quality video available to your nearby TV (if your TV has this connection). Use an S-Video cable to make the connection. If you use this back panel output for video between your receiver and nearby TV, you must still connect the audio using the **PHONO (RCA) AUDIO LEFT/RIGHT OUTPUTS** and Phono (RCA) cables.

TV Antenna/Cable In

The **TV ANTENNA/CABLE IN** is used if you want the satellite receiver to connect the tuner of the nearby TV to an off-air antenna or cable TV system when the satellite receiver is turned off or when using the TV/VIDEO button on Remote Control 1. Use a coaxial cable to make this connection to an off-air antenna or cable TV system. The **TV ANTENNA/ CABLE IN** connection is color coded black. Your nearby TV must be connected to the **CHANNEL 3-4** output to use this feature.

TV2 Connections

The following connections provide TV2 menus and programming to the remote TVs.

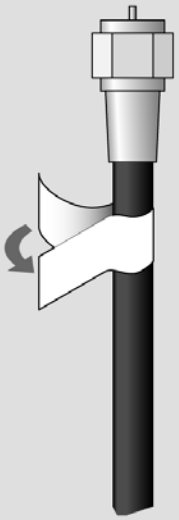
Ch 21–69 OUT

The **CH 21–69 OUT** connection provides good quality video and mono (non-stereo) audio for the remote TV(s). Use a coaxial cable to make this connection to your home cable system. Remote TVs connected to the home cable system can receive programming from this receiver output. The **CH 21–69 OUT** connection is color coded yellow.

When connecting to the home distribution (**CH 21–69 OUT**) coaxial port, you must meet requirements covered under *FCC Compliance* in the *Appendix*. To meet these requirements, an in-line coaxial attenuator has been included with your receiver and may need to be installed using the following guidance:

- If connecting directly to a TV tuner port, you must install the attenuator in the cable between the **CH 21–69 OUT** port and the TV tuner.
- If connecting to your in-home cabling system to distribute the signal to a TV(s) in other rooms, in most cases you will not have to install the attenuator for most in-home cabling systems.

Tip: If you connect a cable to the TV ANTENNA/CABLE IN port, attach the black sticker to the cable near where it attaches to the receiver. The stickers are located inside the front cover of this guide.

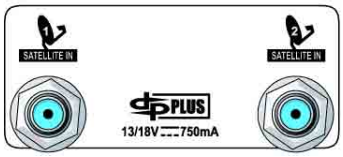


RCA Out

The **RCA** audio/video outputs provide high picture quality and stereo sound to your TV (if your TV has these connections). These outputs can be used to provide TV2 menus and programming to a wireless audio/video transmitter or to a second input on a nearby TV. Use an RCA-type cable assembly to make the connection. If the TV has only one input for this type of audio, connect it to the right (R) phono (RCA) audio output on the receiver.

Other Connections

Satellite In

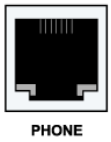


The **SATELLITE IN** connections are used to receive satellite TV signals from the dish antenna. The connection is made using RG-6 coaxial cable. The **SATELLITE IN** connections are color coded blue.

Remote Antenna

The **REMOTE ANTENNA** port receives UHF signals from the Remote Control 2 so that it can control TV2 menus from another room. Connect the UHF antenna here, and place it so that it does not touch anything. If you do not connect the antenna, you cannot use Remote Control 2 to control the receiver for TV2 menus and programming. The **REMOTE ANTENNA** port is color coded green.

Telephone Jack



The **TELEPHONE JACK** is used to connect the receiver to an active telephone line. Use a standard RJ-11 telephone cable assembly to make the connection.

Remote Controls

The two remote controls give you easy access to all the features of your satellite receiver. You can set up each remote to control the satellite receiver and up to three other devices. These devices can be a TV, a VCR or DVD player, and a third device.

Types of Remote Controls

Remote Control 1 uses infrared (IR) light signals to control **TV1** menus for the nearby TV and other devices that the remote is programmed to control.

IR signals travel only short distances (40 feet or less), and cannot go through walls or other solid objects. You must point the remote control directly at the device, with no objects blocking the line of sight.

This remote control is identified by the green number 1 at the bottom of the remote control.

Remote Control 2 uses UHF Pro signals to control **TV2** menus for the remote TVs.

UHF Pro signals travel long distances and go through walls and other solid objects.

To use Remote Control 2 to control the receiver, you must attach the UHF antenna to the receiver back panel (see *Attach a UHF Antenna* on page 18).

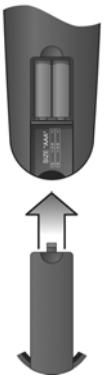
Remote Control 2 uses IR signals to control other devices that the remote is programmed to control. You must point the remote control directly at these devices, with no objects blocking the line of sight.

This remote control is identified by the blue number 2 at the bottom of the remote control.

Batteries

The remote controls come with AAA batteries, which need to be installed when you first receive your system. When you replace old batteries, you should replace all of the batteries. Use batteries of the same kind, for example alkaline or carbon zinc, and don't mix batteries of different kinds. Alkaline batteries last longer than carbon zinc.

Installing or Changing the Batteries



1. Press down on the battery cover's top latch and slide the cover off.
2. If you are changing out batteries, take out all of the old batteries.
3. Put the new batteries in. Make sure you match the plus ("+") ends with the plus markings on the battery case.
4. Slide the cover back into place.

Low Battery Warning

When you see a low battery warning message below the **Program Banner**, the batteries in your remote control are weak and need to be replaced.

Attach a UHF Antenna

You need to attach the UHF remote antenna to the receiver's back panel **REMOTE ANTENNA** input so you can use UHF Pro Remote Control 2.

Note: Be sure to set the antenna straight up so you can use the remote control from as far away as possible. Don't let the antenna touch anything.

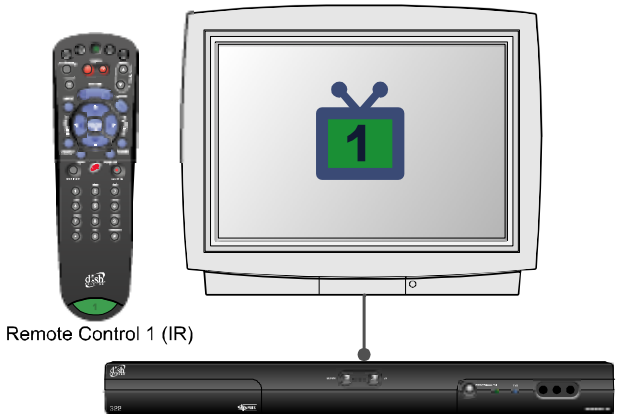
Attention: If your UHF Pro Remote Control 2 isn't working very well from far away, you may be experiencing interference from objects near your receiver. To improve your remote control's range, try any or all of the following:

- Place the receiver higher than all of the other equipment in your entertainment center.
- Provide room above the receiver so that the antenna can be installed straight up. If this is not possible, tilt the UHF antenna at about a 30° angle.
- Place the UHF antenna outside the entertainment center by using a coaxial cable to connect the antenna to the receiver.
- Try moving the receiver to other locations.
- Attach a UHF attenuator to the **REMOTE ANTENNA** port (see 33).

Connecting the Receiver to a Nearby TV

This section describes how to connect receiver **TV1** output ports to a nearby TV. The easiest way to connect the receiver to the TV is using coaxial cable connections, but you may also use **RCA** or **S-Video** outputs.

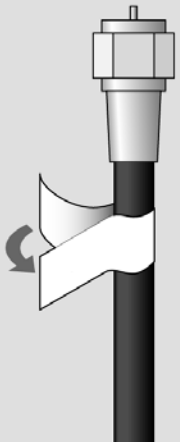
Nearby TV



Coaxial Cable Connections (TV1)

1. Connect a coaxial cable from the **CH 3-4 OUT** output on the receiver to the nearby TV's tuner port.
2. Place the white **CH 3-4 OUT** sticker on the cable near where the cable connects to the receiver (see the picture in the margin).
3. Plug in the power cord for the receiver.
4. Turn on the receiver with the front panel power button and make sure the green TV1 indicator is lit.

Tip: Using cable labels makes it easy to tell which cables connect to the receiver ports. Inside the front cover of this guide are stickers that are color coded the same way as the coaxial connections.



5. Turn on the nearby TV.
6. Tune the TV to channel 3.
7. You should see the **Point Dish** screen.
8. If you do not see the correct screen, tune the TV to channel 4.

   Note: If you want to change the channel that the **CH 3-4 OUT** connection provides to your TV, see *Changing the TV1 and TV2 Output Channels* on page 26.
9. If desired to remind you of which TV channel (3 or 4) to tune to watch satellite programming, place one of the channel stickers (3 or 4) near or on your TV.

Tip: The channel stickers are located inside the front cover of this guide.

RCA and S-Video Connections (TV1)

1. Connect one of the following video cables:
   - **RCA** video cable (yellow) from the receiver TV1 outputs to the nearby TV's **RCA** video input.
   - **S-VIDEO** cable from the receiver TV1 outputs to the nearby TV's **S-VIDEO** input.
2. Connect the **RCA** audio cables (red and white) from the receiver TV1 outputs to the nearby TV's audio inputs. If the TV has only one input for this type of audio, connect it to the right (R) phono (RCA) audio output on the receiver.
3. Make sure your nearby TV is on and set to receive TV from the correct audio and video inputs. Refer to the instructions that came with your TV.
4. Plug in the power cord for the receiver.
5. Turn on the receiver with the front panel power button and make sure the green TV1 indicator is lit.
6. You should see the **Point Dish** screen.

Confirm Remote Control 1 Operation

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

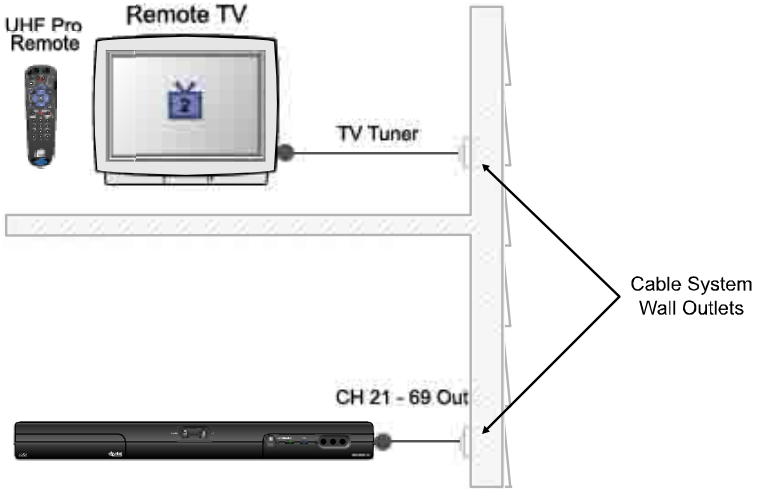
After the nearby TV has been connected to a TV1 output using one of the methods above, do the following to confirm that the IR Remote Control 1 controls the receiver:

1. Make sure that fresh batteries are installed properly in the IR Remote Control 1.
2. Press the SAT button to put the IR Remote Control 1 in SAT mode to control the satellite receiver.
3. Use the Remote Control 1 arrow keys to move around the **Point Dish** screen. If you are able to move around in the **Point Dish** screen, you confirmed that Remote Control 1 is controlling the receiver.

Connecting the Receiver to the TV(s) in Another Room(s)

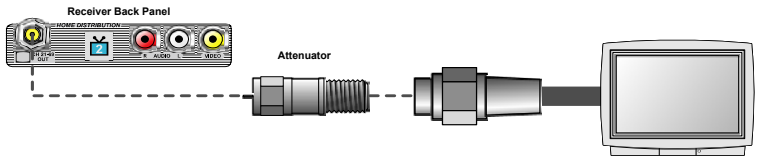
This section describes how to connect the receiver **CH 21–69 OUT** connection to the cable-ready remote TV located in another room away from the receiver. This installation uses your in-home cable system. If your house does not have built-in cabling, it will be necessary to run cables from the receiver to each remote TV. Due to the difficulty of this installation, you should consider having this professionally installed. Call DISH Network at 1-800-333-DISH (3474).

Remote TV



Note: When connecting to the home distribution (**CH 21–69 OUT**) coaxial port, you must meet the FCC requirements in the *Appendix*. To meet these requirements, an in-line coaxial attenuator has been included with your receiver and may need to be installed using the following guidance:

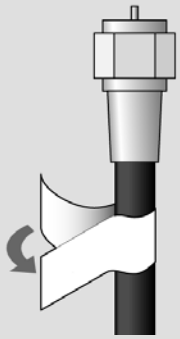
- If connecting to your in-home cabling system to distribute the signal to a TV(s) in other rooms, in most cases you will not have to install the attenuator on the **CH 21–69** port for typical in-home cabling systems.
- If connecting directly to a TV tuner port, you must install the attenuator in the cable between the **CH 21–69 OUT** port and the TV tuner.



If you have an off-air antenna or cable connected to your in-home cable system, see *Optional - Connecting to an Off-Air Antenna or Cable* following this section.

Make sure you are familiar with how to change channels on your TV and if necessary how to switch your TV between off-air and cable channels. During this procedure, it will be necessary to change the channels on your TV(s) to tune to these channels to see the video from the receiver. See your TV user guide for instructions.

Tip: Using cable labels makes it easy to tell which cables connect to the receiver ports. Inside the front cover of this guide are stickers that are color coded the same way as the coaxial connections.



1. Connect **CH 21-69 OUT** on the receiver to your existing wall cable outlet using a coaxial cable.

   Note: If you do not have an existing in-home cable system, you will need to run coaxial cable to each TV in other rooms. If this is too difficult, you may want to contact a professional to do this installation.

2. Place the yellow sticker on the **CH 21-69 OUT** cable near where the cable attaches to the receiver. See the tip in the margin.
3. Make sure batteries are installed in Remote Control 2 and the UHF antenna is attached to **REMOTE ANTENNA** port on the receiver.
4. Make sure the receiver's blue TV2 indicator is off. If it is on, turn it off by doing the following:
   a. Press the SAT mode button on Remote Control 2 to put the remote control in SAT mode.
   b. Press the POWER button on Remote Control 2 and make sure the receiver's TV2 blue indicator turns off.
5. Connect the tuner input of the remote TV(s) in other rooms to an existing wall cable outlet using a coaxial cable.
6. Turn on every remote TV connected to the in-home cabling system.
7. Find three channels next to each other on one of your remote TVs that do not pick up any signals from off-air or cable broadcasts (they should show nothing but snow or static). These channels must fall in one of the two ranges below. For example, if you find that cable channels 75, 76, and 77 do not pickup any broadcasts, pick these channels since they fall into the range below for cable channels. Make sure these three channels on other remote TVs also do not pick up broadcasts.
   - **Air Mode** - Select a channel between 21 and 69.
   - **Cable Mode** - Select a channel between 73 and 125.

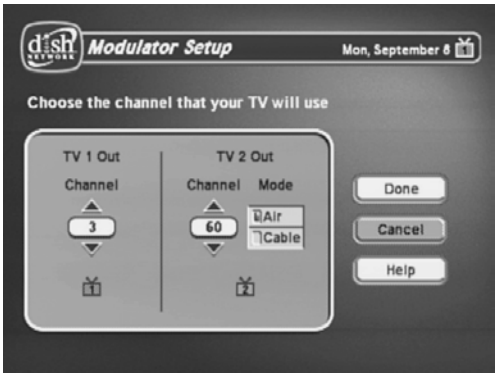
   Note: The remote TV(s) will have to be set to the same channel mode, either off-air or cable channel mode for this installation. See your TV user guide for instructions on how to set your TV to off-air or cable channel modes.

Channel: _____

8. Pick the channel in the middle of the three you selected in step 7. Write that channel down in the blank provided in the margin. For example, if the three channels you picked in the preceding step were cable channels 75, 76, and 77, pick channel 76 and write it in the margin.

Air/Cable: _____

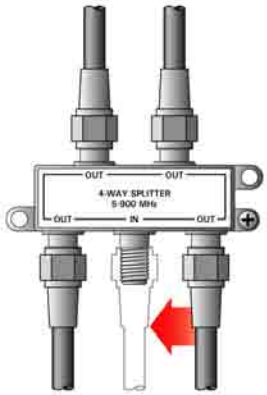
9. If your TV is in off-air mode for the channels you picked in step 7, write "Air" in the blank provided in the margin. If your TV is in cable mode for the channels you picked in step 8, write "Cable" in the blank provided in the margin.
10. Set all of your remote TV(s) to the channel mode (Off-Air or Cable) you wrote in the margin.
11. Tune all of your remote TV(s) to the channel you wrote in the margin. This is the channel you will use to receive your satellite programming.
12. Turn on the nearby TV (the TV that gets programming from the TV1 outputs).
13. Press the POWER button on Remote Control 1 to turn on the receiver's green TV1 indicator.
14. You should now be looking at the **Point Dish** screen on your nearby TV. Select the **Modulator Setup**, if shown. If the option is not shown, press MENU 6-1-5 on Remote Control 1 to get to the **Modulator Setup** screen.



15. With the **Modulator Setup** screen displayed on the nearby TV, use Remote Control 1 to do the following:
    a. Under **TV2 Out**, select either **Air** (for off-air channel numbers) or **Cable** (for cable channel numbers) based on what you wrote down in the margin in step 9.
    b. Under **TV2 Out**, use the up and down arrow buttons to change the modulator channel to the one you wrote in the margin in step 8.
    c. Select **Done** to save the changes.
16. Using Remote Control 2, press the POWER button and make sure the receiver's blue TV2 indicator turns on.
17. For some TVs, you must run a channel scan so that the TVs will find and display the selected channel from the receiver. Run channel scan on all remote TV(s), if available. See your TV user guide for instructions.
18. Confirm that you see a picture from the receiver TV2 output, likely the **Point Dish** screen, on your remote TV(s).
    - If your picture looks good, go to step 26.
    - If your TV(s) do not have a picture or if it is not as clear as you would like it to be, go to the next step.

19. You may need to change the cable connection on the splitter that sends the TV signal throughout your house. The change that needs to be made is move the cable coming from the receiver **CH 21-69 OUT** from the output of the splitter to the input of the splitter using the instructions below.

    The following figure shows an example of what your splitter may look like. Your splitter may look different. The places where the splitter indicates **OUT** refers to all TVs connected to your cable system. The places where the splitter indicates **IN** refers to where the signal is fed into the splitter.



1 Input, 4 Output (4-Way) Splitter

20. Find where the TV signal is distributed throughout your house. It should be near where the cable TV service enters the house.
21. Disconnect the cable TV service cable or antenna cable from the splitter input, if necessary. Make sure the disconnected cable is capped or otherwise protected from the weather.
22. Disconnect the cable coming from the receiver **CH 21–69 OUT** port from the splitter. If you do not know which cable this is, go to the next step. Otherwise, go to step 24.
23. If you have multiple TVs on the cable system, do the following to determine which cable on the splitter is coming from the receiver:
    - If you have at least some picture on your TV(s), turn on all remote TVs connected to the cable system. Disconnect and reconnect each cable one by one observing what happens to the TV(s). When all remote TVs lose the signal, you have disconnected the receiver's cable. If only some or one TV loses the signal, then you have disconnected a cable from the TV(s).
    - If the above step does not work, disconnect one of the output cables and connect to the splitter input. If you do not see a picture, connect the cable back to its output. Repeat this step on every connection until you get a picture on the remote TV(s).
24. Reconnect the receiver's cable to the input of the splitter.

25. Make sure you have a good picture on your remote TV(s).
26. If desired to remind you of which TV channel your satellite programming is on, write the channel number you wrote in step 8 on a blank channel sticker and place it on or near your remote TV(s).

Tip: The channel stickers are located inside the front cover of this guide.

Confirming Remote Control 2 Operation

After the remote TV(s) have been connected to the **CH 21–69 OUT** using in-home cabling using the proceeding steps, do the following to make sure Remote Control 2 controls the receiver:

1. Press the SAT button to put Remote Control 2 in SAT mode to control the satellite receiver.
2. From a remote TV, use the Remote Control 2 arrow keys to move around the **Point Dish** screen. If you are able to move around in the **Point Dish** screen, you confirmed that Remote Control 2 is controlling the receiver.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

Programming the Recover Button

Your remote controls come equipped with a RECOVER button that helps you if you accidentally change the channel or video input on your remote TV and cannot get the picture back from your satellite receiver. When you press the RECOVER button as described on page 41, the remote control sends commands to your remote TV to change channels or video inputs to try to get you back to watching satellite programming.

When your Remote Control 2 is shipped from the factory, the RECOVER button is set up restore satellite TV viewing by tuning your TV to channel 3, 4, and other inputs (see page 41 for details). However, to use the RECOVER button with your remote TV, you need to program the RECOVER button with the specific channel (for example, channel 60) that you use to watch TV2 programming. The following instructions describe how to program the RECOVER button to tune your remote TV back to a selected channel.

Programming the Recover Button Channel

1. Program Remote Control 2 to control your remote TV using the instructions in *Control Other Devices with the Remote Controls*.
2. Press and hold the TV mode button until all the other mode buttons light up, and then let go of the button. The TV mode button flashes.

3. Press the STAR (*) button.
4. Enter the three digits of your channel number. For example, if your remote TV is set to channel 60, enter 0-6-0.

5. Press the POUND (#) button. The TV mode button flashes three times.

Removing the Recover Button Channel Programming

The following instructions describe how to reset the RECOVER button to the way it was delivered to you from the factory.

1. Press and hold the TV mode button until all the other mode buttons light up, and then let go of the button. The TV mode button flashes.

2. Press the STAR (*) button.
3. Press 0-0-0.
4. Press the POUND (#) button. The TV mode button flashes three times.

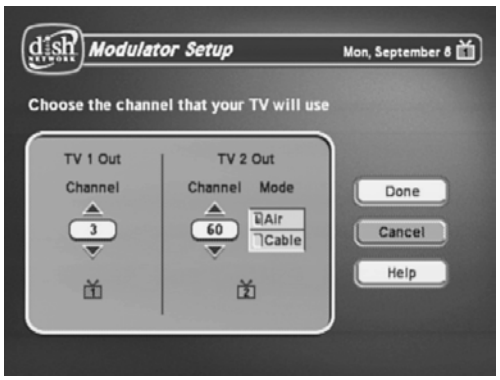
Changing the TV1 and TV2 Output Channels

The receiver comes preset to use channel 3 for **TV1** and off-air channel 60 for **TV2**. If you are experiencing interference on the channels you are using, follow these instructions to change the channel that **TV1** or **TV2** uses.

Make sure you are familiar with how to change channels on your TV and if necessary how to switch your TV between off-air and cable channels. When you change these receiver output channels, you must also change the channels on your TV(s) to tune to these channels to see the video from the receiver. See your TV user guide for instructions.

Tip: It's easier to set the output channel from the opposite TV. For example, if you are changing the output on TV1 (nearby TV), use TV2 (remote TV) to make the change. When you save the changes, simply remember to change the channel on the nearby TV.

1. Press MENU-6-1-5 to open the **Modulator Setup** screen.



2. For **TV1 Out**, highlight the number under **TV1 Out**. For **TV2 Out** skip to step 4.
3. Use the UP and DOWN ARROW buttons to change the modulator channel either **3** or **4**. Continue to the next step to set **TV2 Out** or skip to step 7 if you are finished making changes.

4. For **TV2 Out**, select either **Air** (for off-air channel numbers) or **Cable** (for cable channel numbers).
5. Highlight the number under **TV2 Out**.
6. Use the UP and DOWN ARROW buttons to change the modulator channel to one of the following:
   - **Air Mode** - Select a channel between **21** and **69**.
   - **Cable Mode** - Select a channel between **73** and **125**.
7. Select **Done** to save the changes.
8. Change the channel on your TV(s) to match the channel(s) you selected.
9. If desired to remind you of which TV channel to tune to get satellite programming, place a channel sticker near or on your TV to indicate the correct channel.
10. If you changed your TV2 Out channel, repeat *Programming the Recover Button for a Remote TV*.

Tip: The channel stickers are located inside the front cover of this guide.

Connecting the Receiver to the Phone Line

You *must* keep the receiver connected to an active telephone line. Otherwise, you may not be able to order pay per view programs or use all of the DISH Interactive features.

Note: You *may* be able to use a wireless telephone extender. However, this may *not* support all the features of this receiver, such as Caller ID.

Note: If you have a Digital Subscriber Line (DSL), you may have to install a DSL filter between the receiver's back panel PHONE JACK and the telephone wall jack to successfully connect with the DISH Network. You can obtain a filter from your DSL provider.

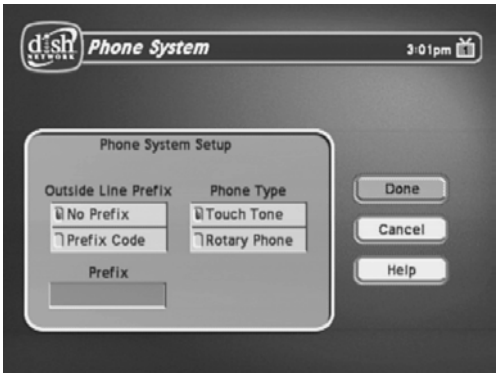
Phone Line Connection

Run a telephone cable with a standard RJ-11 connector from the receiver's back panel **Phone Jack** to an active telephone connection.

Phone System Setup

You must also set up the receiver for your telephone system (touchtone or rotary/pulse), and set a telephone number prefix, if you need a prefix to make an outside call.

1. Display the **Phone System** screen by pressing MENU-6-1-4.



2. Select the **Touch Tone** or the **Rotary/Pulse** option in the **Phone Type** list.
3. Select either the **No Prefix** or the **Prefix Code** option in the **Outside Line Prefix** list.

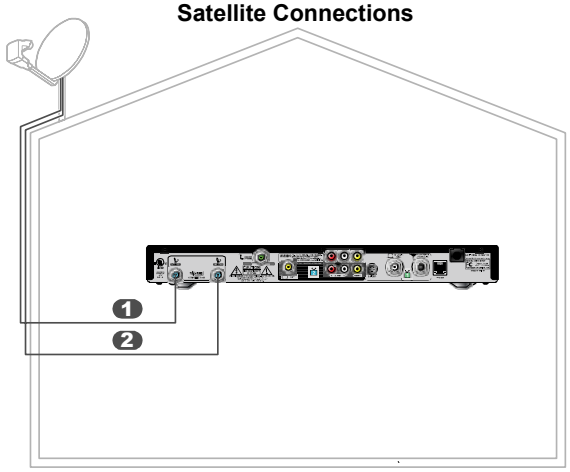
   Note: Usually, you need a telephone number prefix only for business installations. For most residential installations, all you need to do is set the telephone system type. The default setting of **No Prefix** will allow correct dialing. If this is the case, select the **Save** option to save the above setting, and stop here. If you do need to set a prefix, then instead of selecting the **Save** option, go on to step 4.
4. If you selected the **No Prefix** option, select **Save** to finish.
5. If you selected the **Prefix Code** option, the receiver highlights the box (highlighting the top box) where you must enter the digits. To do this, do the following:
   a) Enter the number of digits required to obtain an outside line in the top box.
   b) Move the highlight to the bottom box.
   c) Enter the exact sequence you dial the phone to obtain an outside line in the bottom box.
6. Select the **Save** option to save the settings.

Connecting the Receiver to a Dish Antenna System

Note: Before you can begin connecting your receiver to your dish antenna, you must first complete the preceding sections on connecting your TVs to the receiver. Then if you are installing a dish antenna system for the first time, see *Chapter 4 - Dish Antenna Installation* starting on page 85. Otherwise, if you already have a dish antenna system installed and peaked for maximum signal strength, complete the following instructions to connect the dish antenna system to the receiver.

Note: You will need two available receiver connection points on your installed switch or LNBF to complete this installation. If these ports are not available, you may need to upgrade your system with different or additional equipment. See *DISH Pro* W*iring Diagrams* in *Chapter 4* starting on page 94.

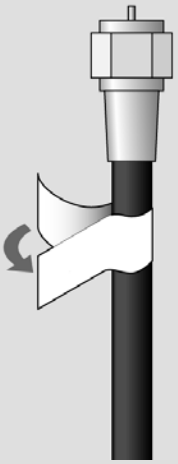
Satellite Connections



1. Connect two RG-6 coaxial cables between the **SATELLITE IN 1** and **SATELLITE IN 2** ports on the receiver's back panel to two available ports on either your switch or your LNBF in your existing system. See the wiring diagrams in *Chapter 4* for appropriate receiver connections in your system.

   Note: If you are installing your receiver into a system with DISH Pro LNBFs (and/or switches), you can have as much as 200 feet of cable between the LNBF and the receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say "Swept tested for 2150 MHz." If you have any doubt about this, ask your DISH retailer, examine the cable's outer jacket, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Use waterproof F-connectors outdoors.
2. Peel off the blue stickers and affix them to the cables close to where they connect to the **SATELLITE IN 1** and **SATELLITE IN 2** connections on the back of the receiver.
3. On Remote Control 1, Press the MENU-6-1-1 to display the **Point Dish/Signal** screen on the nearby TV.
4. Select **Check Switch**. When an attention screen displays, select **Test**.
5. The receiver begins performing the **Check Switch** tests. When it is finished, the **Installation Summary** screen displays.

Tip: Using cable labels makes it easy to tell which cables connect to the receiver ports. Inside the front cover of this guide are stickers that are color coded the same way as the coaxial connections.



6. Make sure that the information on the **Installation Summary** screen identifies your system correctly and shows all transponders for all satellites in your system. Your screen may look different from the example above depending on the dish antenna system you are using.

7. Select **OK** to go to the **Point Dish/Signal** screen.

8. Select **Cancel** to exit the **Point Dish** menu. An **Attention** screen will open asking if the mounting and positioning of your dish is complete with a **Locked** indication in the **Point Dish** screen. If the answer is yes, select **Yes**.

   *If the answer is **No**, you will need to repoint your dish following the preceding steps until the mounting and positioning is complete and you do have the **Locked** indication.*

9. After you select **Yes**, the receiver will begin taking a software upgrade. You will see a **Warning** that **Vital program information will now be downloaded into your receiver**. You will also see a status bar showing the progress of this upgrade.

10. Once the software upgrade is complete, you will see a message that your receiver's memory is being upgraded.

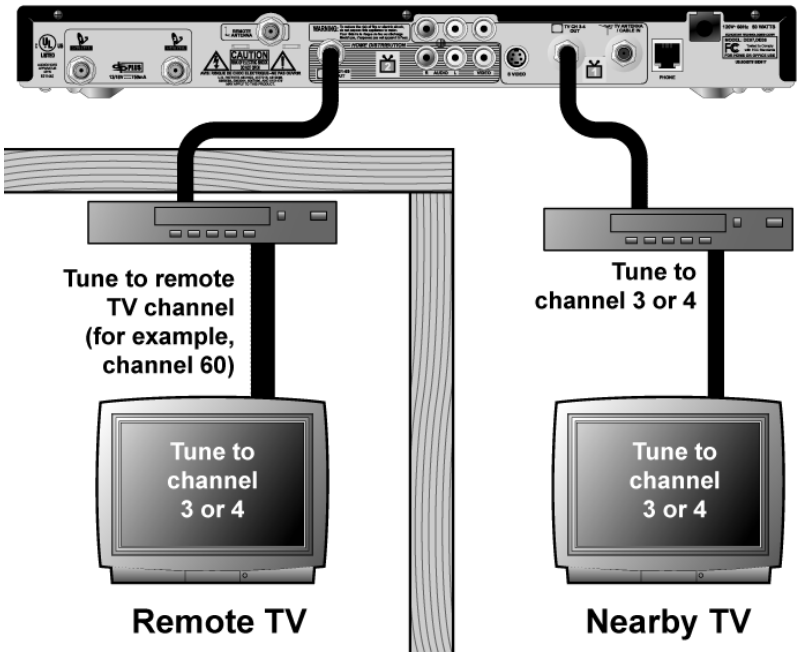
11. Do not disturb the receiver while the receiver's memory is being upgraded.

    Note: If you are installing other DISH Pro or DISH Pro Plus receivers, be sure to run **Check Switch** on all of them, and allow them to take the necessary software upgrade.

12. When the memory upgrade is complete, you should be watching TV. Your dish antenna installation is now complete.

Optional - Connecting VCRs to the System

The diagram below provide example of how to connect VCRs to your satellite TV system. Your installation may be different.


Tune to remote TV channel (for example, channel 60)
Tune to channel 3 or 4
Tune to channel 3 or 4
Tune to channel 3 or 4
Remote TV
Nearby TV

Connecting a VCR to the Nearby TV

1. Connect a coaxial cable from the **CH 3-4 OUT** output on the receiver to the nearby VCR's tuner port.
2. Connect a coaxial cable from the output on the VCR to the nearby TV's tuner port.
3. Plug in and turn on the nearby VCR and TV.
4. Set the VCR output to Channel 3 or 4 as set on page 26
5. Tune the nearby VCR and TV to Channel 3 or 4 as set on page 26.

Connecting a VCR to the Remote TV

1. Connect the tuner input of the remote VCR to an existing wall cable outlet using a coaxial cable.
2. Connect a coaxial cable from the output on the VCR to the remote TV's tuner port.
3. Plug in and turn on the remote VCR and TV.
4. Tune the remote VCR to the remote TV channel that you use to watch satellite TV programming (for example, channel 60) as set on page 26.
5. Set the VCR output to channel 3 or 4.
6. Tune the remote TV to the same channel that you set your VCR to in step 5.

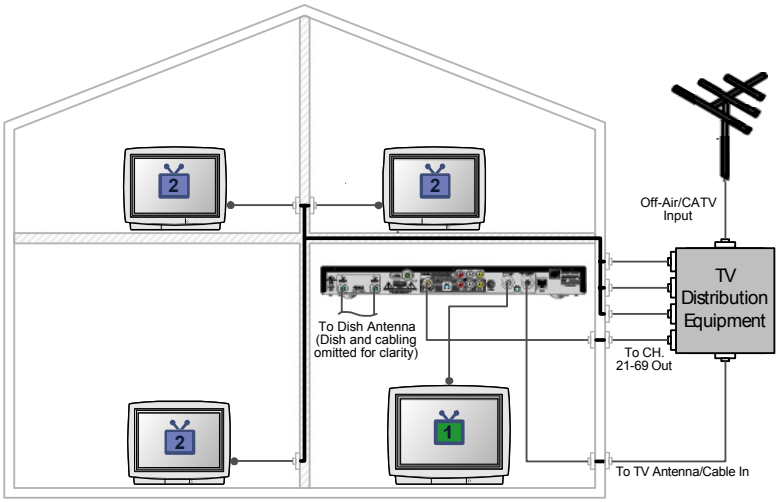
Optional - Connecting to an Off-Air Antenna or Cable

If you want to receive channels from an off-air antenna or cable in addition to your satellite receiver programming, connect the off-air antenna/cable into your TV distribution equipment.

For the nearby TV receiving programming from **CH 3–4 OUT**, the off-air antenna cable needs to be connected to the **TV ANTENNA/CABLE IN** port.

For remote TVs receiving programming from **CH 21-69 OUT**, the off-air antenna needs to be connected to your TV distribution equipment. When adding this connection, the FCC requires that your install appropriate equipment between the off-air antenna/cable and the satellite TV receiver to prevent you from accidentally retransmitting DISH Network programming (see *FCC Compliance* in the *Appendix*).

TV distribution equipment devices include coax panels, amplifiers or super home nodes, and are available through many companies.



Optimize Your Remote Controls

Change the Address

Tip: You can also use this procedure to change the Primary Remote Address for Remote Control 1 on a nearby TV, if necessary.

When you receive your system, both remote controls and the receiver have been set to communicate on address 1. However, because UHF signals travel long distances and go through walls, a neighbor's UHF Pro remote could control your receiver by mistake if they are on the same address. To handle this problem, you can change address on Remote Control 2 and the receiver as follows:

1. Make sure you turn on the TV.
2. With the receiver off, press CHANNEL UP or CHANNEL DOWN on the receiver's front panel to display the **System Info** screen on a remote TV.

The **System Info** screen shows the **Secondary Remote Address**.

Write down this address: _____

3. Press and hold the SAT button on Remote Control 2 for about three seconds, until all of the mode buttons light up, and then let go of the SAT button.

4. Use the NUMBER PAD buttons to enter any number between 1 and 16, but not the one you wrote in step 2.

   Write down the number you entered: _____

5. Press the POUND (#) button. If you entered the address correctly, the SAT mode will flash three times.

6. Press the RECORD button.

7. Make sure the **Secondary Remote Address** you see on the **System Info** screen is the same as the one you entered in step 4. If it isn't, the remote cannot control the receiver.
8. Press the SELECT button to close the **System Info** screen.

Check the Remote Control Address

1. Press and hold the SAT mode button for three seconds, until all of the mode buttons light up, and then let go of the SAT button.

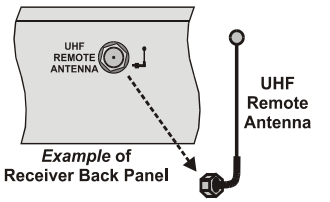
2. Press the POUND (#) button twice. The SAT mode button will flash the same number of times as the address number (three flashes means address 3).

Attach a UHF Attenuator

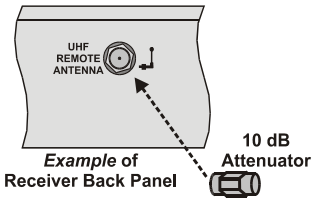
Stray UHF signals can block signals from the remote control to the receiver. To prevent blocks, you can install a 10 dB attenuator (you can buy one from a consumer electronics parts store).

Note: This will help keep out stray UHF signals, but also cut down how far away you can use the remote control.

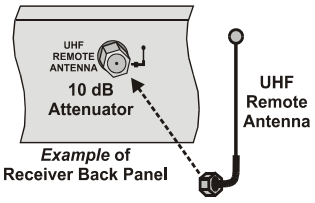
1. Take the UHF antenna off of the receiver's back panel UHF Remote Antenna input.



2. Put a 10 dB attenuator onto the UHF Remote Antenna input.



3. Put the UHF antenna onto the attenuator.



Setting Up TV1 to Operate in UHF Pro

You can set your receiver to operate your TV1 using another UHF Pro remote control (sold separately) by completing the following instructions:

If you set up your DISH 322 to operate the side using UHF Pro, the two UHF Pro remotes for this receiver will interfere with each other when operated at the same time. This may prevent the remotes from operating the receiver momentarily.

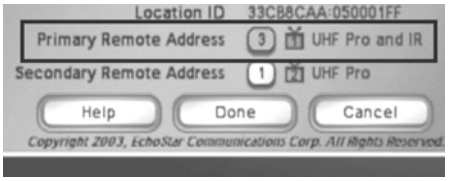
1. Perform the following using an existing remote control:

   a. Open the **TV1 UHF Pro Setup** screen by pressing MENU-6-1-8 on the remote control.

   b. Select **Enable** from the **TV1 UHF Pro Setup** screen.

   c. Select **System Info** to open the **System Information** screen.

   d. Move the highlight to the address for the **Primary Remote Address** as shown below. This is important - if you do not do this, your remote will change the receiver's **Secondary Remote Address** and cause your Remote Control 1 to control the 2 side of your receiver.


Location ID 33CB8CAA:050001FF
Primary Remote Address 3 UHF Pro and IR
Secondary Remote Address 1 UHF Pro
Help
Done
Cancel
Copyright 2003, EchoStar Communications Corp. All Rights Reserved.

Note: Highlight the **Primary Remote Address**.

2. Perform the following using the UHF Pro remote that you are going to use to control TV1:

   a. Press and hold the SAT mode button about three seconds, until all the mode buttons light up, and then let go of the SAT button. The SAT mode button will blink.

   b. Use the NUMBER PAD buttons to enter any number from 1 to 16, except for the number shown by the **Secondary Remote Address**. The SAT mode button goes out after you enter each digit, and then lights up again.

      Write down the number you entered: _____

c. Press the POUND (#) button. If you entered the address correctly, the SAT mode button will flash three times.

d. Press the RECORD button.

e. Make sure the **System Information** screen shows that the **Primary Remote Address** shows **UHF Pro and IR** and that this address matches the number you entered in step b.

Setting Up TV1 to Operate in IR

The following instructions describe how to set up TV1 to operate in IR only.

1. Perform the following with an existing remote control:

   a. Open the **TV1 UHF Pro Setup** screen by pressing MENU-6-1-8 on the remote control.

   b. Select **Disable** from the **TV1 UHF Pro Setup** screen.

   c. Select **System Info** to open the **System Information** screen.

2. Using an IR remote control, such as a Remote Control 3.0, that you intend to use to control TV1:

   a. Press the RECORD button. The **Done** button should be highlighted.

   b. Make sure the **System Information** screen shows that the **Primary Remote Address** shows **IR**.

Notes

Chapter 3

Using the System

Using the Remote Controls

The following section describes how to use the remote controls with your satellite receiver. The remote control must be in SAT mode for the buttons to control the satellite receiver. You can also use the remote to control your VCR and other devices. See *Control Other Devices with the Remote* on page 72.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

SAT Mode Button

Press the SAT mode button to set the remote to SAT mode, to control the receiver. The SAT mode button's back light turns ON briefly to show that the remote is set to SAT mode.

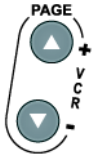
Power Buttons

Press the blank POWER button to turn the TV1 or TV2 (depending on which remote is being used) ON or OFF. Press the TV POWER button to turn the TV on or off.

Note: You must program the remote to control your TV for the TV POWER button to work as described. See page 72 for instructions.

Menu Button

Press the MENU button to open the **Main Menu**.



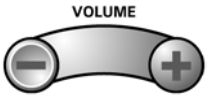
Page Up and Page Down (Arrow) Buttons

Press the PAGE UP button or the PAGE DOWN button to move, page by page, through the **Program Guide**, a **Theme** list, a **Favorites List**, an **Event Timers** list, or a list of channels.

Mute Button

Press the MUTE button to turn off the TV sound. Press it again to restore the TV sound.

Note: You must program the remote to control your TV for the MUTE button to work as described. See page 72 for instructions.



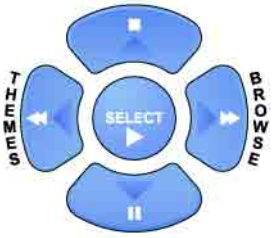
Volume Button

Press the minus (-) side of the VOLUME button to lower the TV volume. Press the plus (+) side of the VOLUME button to raise the TV volume.

Note: You must program the remote to control your TV for the VOLUME button to work as described. See page 72 for instructions.

Guide Button

Press the GUIDE button to open the **Program Guide**. When the **Program Guide** is open, press this button to switch among **Favorites Lists**.



Arrow Buttons

- Change channels - Press the UP or DOWN ARROW button to change channels.
- Open the **Browse Banner** - Press the RIGHT ARROW button.
- Show **Themes** - Press the LEFT ARROW button.
- Move around within the **Program Guide**, menus, and **Browse Banner** - Press the UP, DOWN, LEFT, and RIGHT ARROW buttons.

TV/Video Button

If you connect the receiver using its back panel **TV ANTENNA/CABLE IN** and **CHANNEL 3–4** connections, use this button to switch the receiver **CHANNEL 3–4** output between the satellite programming and another video signal such as cable or broadcast TV antenna connected to the receiver's **TV ANTENNA/CABLE IN**.

Select Button

Press the SELECT button to select the option you highlight in a menu.

Recall Button

Press the RECALL button to go back to the last satellite receiver channel you were watching. Press it again to switch between the last two satellite receiver channels you were watching.

Info Button

- Program information - Press the INFO button for more information when you watch a program, or when you have the **Program Guide**, **Browse Banner**, or **Themes** list open.
- Help - Press the INFO button to see help information when a **Help** button appears in a menu.

View TV Button

Press the VIEW TV button to close all menus and go to watching programming. Press the VIEW TV button to briefly display the **Program Banner** while watching a program.

Cancel Button

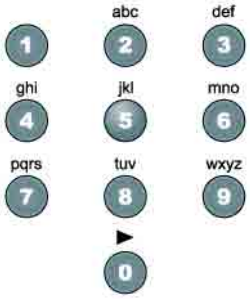
Press the CANCEL button to cancel and go back to the previous menu or to watch a program.

Sys Info Button

Press the SYS INFO button to display the **System Info** screen.

Dish Button

Press the DISH button to go to **Dish Home**.



Number Pad Buttons

When watching a program or with the **Program Guide** open, use these buttons to enter a channel number to change to that channel.

- When the **Program Guide** is open, you can skip ahead and then back a number of hours. Just enter the number you want to skip ahead (or back), and then press the RIGHT (or LEFT) ARROW button.
- Use these buttons to enter menu option numbers instead of highlighting the option and then pressing the SELECT button.
- Use these buttons to enter numbers in a menu:
  - Highlight the place where you want to enter the first number, and press the appropriate number buttons on the remote.
  - Use the LEFT or RIGHT ARROW button to move the highlight to the next place where you want to enter a number. When you are done entering numbers, press SELECT.
- Use the letters above the NUMBER PAD buttons while in the **Search** menu. For example, when looking for the channel and times to watch *Rudy Fremmel Presents*, you press 7 three times for an R, 8 two times for a U, 3 one time for a D, and 9 three times for a Y to spell the word "Rudy" (see *Using Themes and Search* on page 59).

Star Button

Press the STAR button to back space while using the search function of your receiver.

Zero Button

Press the ZERO button to forward space while using the search function of your receiver.

Pound Button

Press the POUND button to display the **Search** screen. Also, you use this button in several procedures in this *User's Guide*.

Recover Button

Press the RECOVER button if you accidentally change the channel or video input on your TV and cannot get the picture back from your satellite receiver. When you press the RECOVER button as described below, the remote control sends commands to your TV to change channels or video inputs to try to get you back to watching satellite programming. This procedure works only if you have accidentally changed the TV channel or video input. It does not recover lost satellite signal (See *Chapter 5 - Reference* for troubleshooting information).

The following setup is required to use the RECOVER button:

- The remote control must be set up to control the TV and, if installed, the VCR (see page 72).
- If a VCR is installed, make sure it is connected as shown on page 31.
- On a remote TV, the RECOVER button must be programmed to tune your remote TV to the specific channel to receive TV2 programming (for example, channel 60), using the instructions on page 25.

To use the RECOVER button, complete the following instructions:

1. Press and hold the RECOVER button until all four mode buttons light, and then let go of the button. The SAT mode button flashes twice and then all four mode buttons flash three times.
2. Press the RECOVER button. Wait for the TV or VCR mode button to flash once and then all four mode buttons to flash once.
3. If you see the **System Info** screen, press the SELECT button to close the screen. You have recovered your satellite video.
4. If you do not see the **System Info** screen, repeat steps 2 and 3 until you have recovered your satellite video.

   Note: Press any remote control button other than the RECOVER button to end this procedure.

   Note: If the RECOVER button is not programmed to a specific channel, the RECOVER button will first try to tune your TV to channel 3, then channel 4, and then other video inputs with each press of the RECOVER button. You may need to press the RECOVER button up to 30 times to recover your satellite TV video. If the RECOVER button is programmed to a specific channel (see page 25), the RECOVER button will tune the TV to the specific channel (for example, channel 60).

Using the Menus

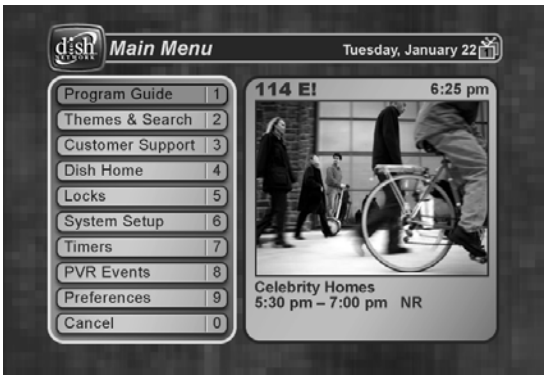
Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

The menus make using the receiver and selecting programs quick and easy. Use the menus to control the receiver and to use its features, such as setting locks, choosing a program, or creating a favorites list.

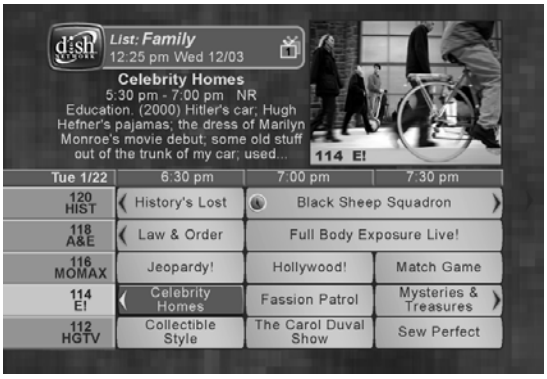
Open and Close Menus

You can open the menus in either of two ways:

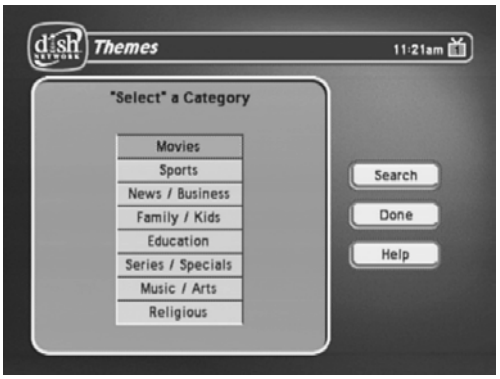
- Press the MENU button to open the **Main Menu**, then open any of the other menus from the **Main Menu**.



- Use the matching buttons on the remote control:
  Open the **Program Guide**.



- When watching a program, open the **Themes and Search** menu.



- Display the **Browse Banner**.

- To close a menu and return to watching a program, press either the VIEW TV or CANCEL button.

  Note: If you do not do anything in a menu for several minutes, the menu automatically closes. This will discard any changes you made, and display the program you were watching.

Highlighting Menu Options

To highlight a menu option, use the remote control ARROW buttons to move the on-screen highlight to the menu option. When you do move the on-screen highlight, the option becomes amber. The highlight is like the one that you may have seen on a computer screen.

Selecting Menu Options

When you select a menu option, that option takes effect right away. You can select a menu option in either of two ways:

- If the option has a number next to it, press the number on the NUMBER PAD button that matches this number. When you use the NUMBER PAD button, you do not need to highlight the option first.

- Move the highlight to the menu option using the remote control ARROW buttons. Then press the remote control SELECT button. In the example above, **Sports** is highlighted.

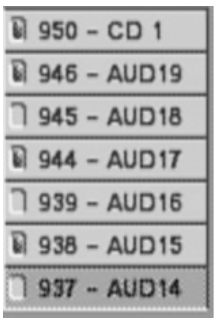
List of Choices in the Menus

When you make a choice in a list, the receiver does not apply the change until you select the **Save** or **OK** option. If you do not want to save any changes, select the **Cancel** option to discard all the changes made in the menu.

There are two types of lists:

- A single choice list allows you to select only one choice at a time. If you select another choice, your previous choice is deselected.

- A multiple choice list allows you to select more than one choice at one time. If you select another choice, your previous choice(s) stays selected.



Highlighting a Choice in a Menu List

Use the remote control ARROW buttons to move the highlight to the desired item in the list. The black arrows on the list show where you can move the highlight.

Selecting a Choice in a Menu

To select a choice in a list, highlight the choice and then press the remote control SELECT button. Make sure you select the **Save** or **OK** option to save your choice. Select the **Cancel** or **Done** option to discard your choice.

Canceling a Procedure

You can cancel a procedure in any of three ways:

- If you want to return to watching a program, press the remote control VIEW TV button.

- If you want to return to the previous menu, press the CANCEL button.

- Wait a few moments and the menu will close automatically, discarding any changes you have made. If this does not work, you must finish the procedure.

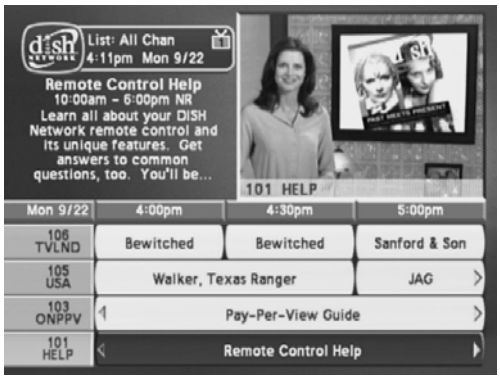
Changing Channels

There are three ways to change channels:

- Press the UP or DOWN ARROW buttons.
- Use the NUMBER PAD buttons.
- Press GUIDE and then select the channel from the **Program Guide**.
- Press BROWSE and then select the channel from the **Browse Banner**.

Using the Program Guide

The on-screen **Program Guide** provides a complete listing of the available channels and programs. You can use the **Program Guide** to change channels, to see what programs are scheduled, and to buy pay per view programs.



The **Program Guide** shows which **Favorites List** is active. If the **All Chan** list is active, the Program Guide shows all of the channels available from DISH Network. If the **All Sub** list is active, the **Program Guide** displays only the channels in your subscription. When another list is active, the **Program Guide** displays only the channels in that list. For more information, see *Using Favorites Lists* on page 49. The **Program Guide** shows programs that are on now and that are scheduled up to two days in advance. The guide does not show programs that have ended.

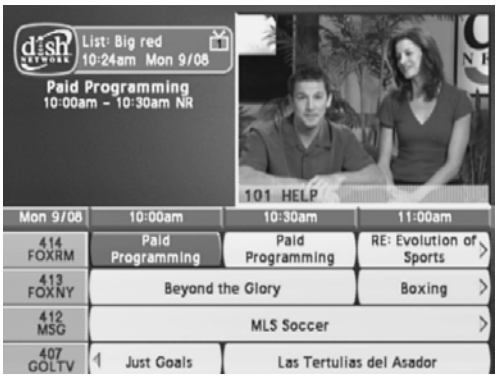
Tip: If the program is on a channel that is not part of your subscription, the channel will be in red.

Tip: When using the Program Guide, do you want to know who is in the movie you're about to watch? Press the INFO button to find out. When you're finished, press the CANCEL button to return to the Program Guide.

Tip: Selecting a program that is not on yet will open the Timers menu. See page 52 for information on setting timers.

Changing the Channel in the Program Guide

1. Press GUIDE to open the **Program Guide**.



2. Choose a channel using either of the following:

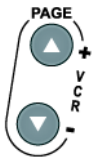
   - Use the NUMBER PAD buttons to enter the channel number. The **Program Guide** displays a block of channels including the one that you just entered.
   - Use the ARROW buttons to move the highlight to the channel.

3. Press the SELECT button to change to the new channel.
4. Press the CANCEL button to close the **Program Guide** without changing the channel.

Scrolling Through the Program Guide

There are two ways to scroll through the **Program Guide**:

- Scroll by channel - Press the PAGE UP or PAGE DOWN button to scan, page by page, through the listing of channels.
- Scroll by time - Enter the number of hours that you want to skip, using the NUMBER PAD buttons. Then, press the LEFT or RIGHT ARROW button.



Displaying Program Information

The Program Banner

The **Program Banner** provides information about the program you are watching. The receiver displays the **Program Banner** for a few seconds at the top of the TV screen every time you change the channel or press the remote control VIEW TV button.

The Browse Banner

You can use the **Browse Banner** to change channels, or to see what other programs are available without changing the program that you are watching. The receiver displays information on the program you are watching at the top and **Browse Banner** information at the bottom of the TV screen.

Note: If the **All Chan Favorite** list is active, the **Browse Banner** displays all the channels. If the **All Sub** list is active, the **Browse Banner** displays only the channels in your subscription. If a **Favorites List** is active, the **Browse Banner** displays only the channels in that list.

If you have set up the **Program Guide** to hide adult channels and the receiver is locked, the **Browse Banner** does not display such channels.

Using the Browse Banner

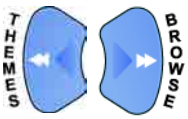
Tip: When using the Browse Banner, do you want to know when the movie you're about to watch was made? Press the INFO button to find out. When you're finished, press the CANCEL button to return to the Program Guide.

1. Press the BROWSE (RIGHT ARROW) button to open the **Browse Banner**.

2. Change the channel displayed on the **Browse Banner** by doing one of the following:

   - Enter the channel number for the program that you want, using the NUMBER PAD buttons.
   - Press the UP or DOWN ARROW to display the next channel.

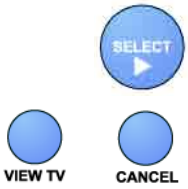
3. Press the RIGHT ARROW button multiple times to highlight the next programs. Press the LEFT ARROW button to return to the current program.



Tip: If you choose a program that is on next, you'll see a Timers menu. See page 52 for more information.

4. Close the **Browse Banner by doing one of the following**:

   - Press the SELECT button to watch the program.
   - Press the VIEW TV or CANCEL button to close the Browse Banner without changing the channel.



Ordering Pay Per View Programs

1. Highlight the desired pay per view program in the **Program Guide** and press the SELECT button. A message like the following displays:

2. To buy the pay per view program, select the **Yes** option.
   The receiver displays a confirmation menu.

   Note: Once you confirm an order for a pay per view program, you cannot cancel the order and you will be billed for it.

   Select **Yes** if you want to confirm your purchase.

   If you do not want to purchase the pay per view program, select the **No** or **Cancel** option.

Using Favorites Lists

Favorites Lists are lists of your favorite channels. You can create and change the lists yourself, adding and removing channels as you wish. You can have an unlimited number of favorite channels but they must be grouped into no more than four lists. For example, one **Favorites List** could have 100 channels and a second list only 10. Or all four lists could have 50 channels each.

- When you make a **Favorites List** active, the **Program Guide** displays only the channels in that list. Also, the receiver skips channels that are not on the list when you use the remote control UP or DOWN ARROW button to change channels.
- The **All Chan Favorites List** contains all the channels. You cannot make any changes to the **All Chan** list.
- The **All Sub Favorites List** contains all the channels in your subscription. You cannot make any changes to the **All Sub** list, except by changing your subscription.
- Each **Favorites List** has a unique color in the **Program Guide**. You can give each list a name. When you first get the receiver, the four lists are named **List 1**, **List 2**, **List 3**, and **List 4**. The lists are empty until you add channels to them.

  Note: If you choose a program using **Theme**, the receiver tunes to the channel for that program whether or not that channel is on the active **Favorites List**.

Creating or Changing a Favorites List

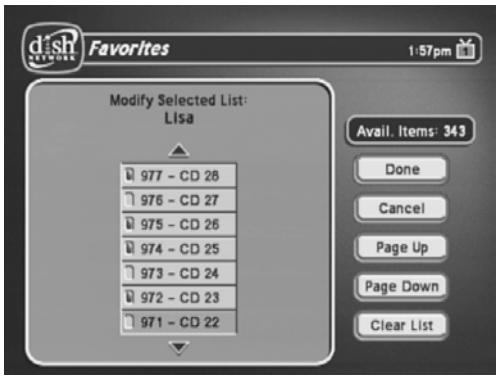
You can create, add channels to, and remove channels from a **Favorites List**.

1. Press the MENU-8 to open **Favorites**.

2. Select the **Favorites List** that you want to create or change.

   Note: You cannot modify the **All Chan** or **All Sub** lists.

3. Select **Modify List**.



4. In the **Channels** list, highlight a channel you want to add to the **Favorites List**.
5. Press SELECT to add the highlighted channel to the **Favorites List**. A dot appears next to the channel.
6. Repeat steps 5 and 6 until you have added all the channels that you want.
7. To delete a channel from the **Favorites Lists**, select the channel in the list. The dot next to the channel disappears.
8. Select the **Done** option to save all changes to the **Favorites List**.

   Note: If you try to save a **Favorites List** with no channels, you will see an error message.

Naming a Favorites List

1. Press MENU-8 to open **Favorites**.
2. Select the **Favorites List** that you want to change.
3. Select the **Edit Name** option.

   Note: You cannot change the name of the **All Chan** or **All Sub** list.
4. Enter the list's name by doing one of the following:

   - Use the virtual keyboard to type the list's name.
   - Use the remote control NUMBER PAD to enter the letters in the **Enter Name** box. Numbers 2 through 9 have telephone-style numbers written above them. To enter an **H**, for example, press 4 twice because H is the second letter listed above the 4 on the NUMBER PAD.

Favorites
2:08pm
Use the Alpha-Numeric Pad on the remote or the On Screen Keyboard to edit Favorite List Name.
Enter List Name:
Family _
Done
Cancel
Clear Entry
Help
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z ' - . &
1 2 3 4 5 6 7 8 9 0
Back
Space

   - You can enter up to eight characters, including spaces. If needed, select the space option to insert a space in the name or the **Back** option to correct a letter.

   Note: A list must have at least one character. Two lists cannot have the same name. TV1 and TV2 can have lists with the same names.

   Note: At any time, you can select the **Clear Entry** option to clear the name.
5. Select the **Done** option to save all changes.

Making a Favorites List Active

If the **Program Guide** is open, press the GUIDE button to select the next **Favorites List**. Press the GUIDE button repeatedly to scan through all the available lists.

Note: This works only if you have added channels to the **Favorites List**. If you have not created any **Favorites List**, pressing the GUIDE button switches the receiver between the **All Chan** and **All Sub**.

Using Timers

Event timers let you set up the receiver to tune in future programs and/or record them on a VCR (TV1 only). An "event" is a program, sports event, pay per view movie, or anything else on satellite TV.

- You can set an automatic event timer for a program listed with start and stop times in the **Program Guide**. This can be a program that comes on each day or each week.
- A manual event timer lets you set custom start and stop times for a timer.

  Note: If you want to have the **Event Timer** record to a VCR, you must set up the receiver to control the VCR (see page 57).

Remember: Most TV programs and films are copyrighted. In some cases, copyright law may apply to private, in-home recording.

Event Timer Types

Reminder - Reminds you that a program is about to start.

Auto-Tune - Reminds you that a program is about to start and tunes the receiver to the program when it begins.

VCR - Reminds you that a program is about to start, tunes the receiver to the program when it begins, and starts your VCR. This timer is available through TV1 menus only.

Note: You can record only the program to which the receiver is tuned. If you open any menu while recording a program on videotape, the menu also will be recorded. If a program time changes by more than twenty-four hours, the timer will not operate.

Event Timer Frequency

Once - Applies to a one-time program. If the program time changes, this timer operates at the new time. The receiver deletes this timer when the timer operates.

Mon.-Fri. - Applies to a program that is scheduled for Monday through Friday on the same channel at the same time each day.

Daily - Applies to a program that is scheduled for Monday through Sunday on the same channel at the same time each day.

Weekly - Applies to a program that is scheduled for once a week on the same channel at the same time on the same day.

Before an Event Timer Operates

Two minutes before an event timer operates, the receiver displays a small clock on the TV screen. This clock disappears when the program begins. While the clock is displayed, you may do either one of the following:

- Press the CANCEL button to clear the symbol from the TV screen. This does not affect the timer; it will operate.

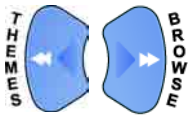
- Press the INFO button to see more information on the event timer. If you do this, you will have the following choices:

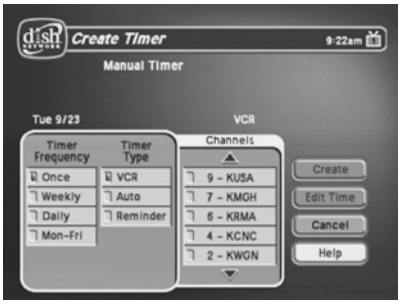
- Select the **OK** or **Cancel** option to continue with the event timer.
- Select the **Stop Timer** or **No** option to stop the event timer.

  Note: This stops only this instance of a **Mon.-Fri**., **Daily** or **Weekly** timer. The timer will operate the next time it is scheduled. To stop all operations of such a timer, you must delete the timer. For a **Reminder Event Timer**, instead of having the option to stop the timer, you have the option to tune to the program.

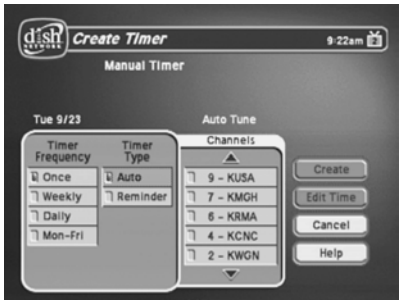
Setting Up an Automatic Event Timer

1. Select a future program using the **Browse Banner**, **Themes** menu or the **Program Guide**. One of the following **Create Timer** screens display:





TV1



TV2

2. Select a **Timer Frequency** option. Notice that a mark displays in the box.
3. Select a **Timer Type**. The **Create Timer** screen shown on the left is for TV1 and has a **VCR Timer Type** option. This **Timer Type** is not available for TV2 (shown on the right).
4. Select the **Create** option to save the event timer.
5. The receiver displays a timer symbol in the **Program Guide**.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

Setting Up a Manual Event Timer

1. Press the MENU button.
2. Select the **Timers** option.
3. Select the **Create** option. The receiver displays the **Create a Manual Event Timer** menu.
4. Select a **Timer Type** option.

   Note: VCR timers are available through TV1 menus only.
5. Select a **Timer Frequency** option.
6. Select a channel by doing one of the following:

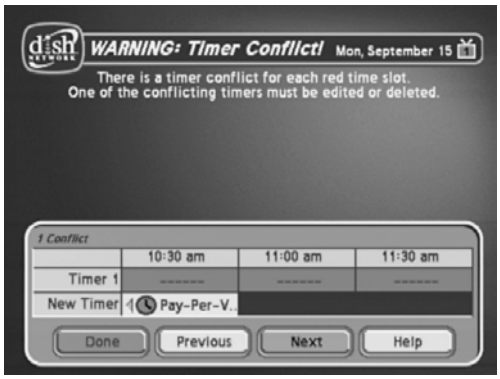
   - Highlight a channel using the UP or DOWN ARROW button. Then, press the SELECT button.
   - Enter a channel number using the NUMBER PAD buttons.
7. Select the **Edit Time** option. The receiver displays the **Set Date/Time** for **Manual Timer** menu.
8. Use the NUMBER PAD buttons to enter the **Start Time** (this includes selecting AM or PM) and the **End Time**, (this includes selecting AM or PM).
9. Use the NUMBER PAD buttons to enter the **Date**.
10. Select the **Create Timer** option.
11. To create another event timer, do one of the following:

    - Select the **Create** option again.
    - If you do not want to create another event timer, press the CANCEL button.

    Note: You cannot set a manual event timer for a pay per view event.

Overlapping Timers

If you try to create event timers for overlapping programs, the receiver displays a screen with the dates and times of both programs. The receiver also displays this screen if a program time has changed, causing one timer to overlap another. You must delete, edit, or skip one of the timers.



When the **Timer Conflict** screen displays, resolve the conflict by doing the following:

1. Select one of the timers. The **Timer Conflict Resolution** screen displays.

2. When the **Timer Conflict Resolution** displays, select one of the following choices:
   - **Delete This Timer -** Removes the timer completely.
   - **Edit This Timer -** You can edit the timer to resolve the conflict.
   - **Skip This Timer Once -** Select this option if you are creating a timer for a special program (**Once**) and have a timer set for a program you watch regularly (**Mon.-Fri**, **Daily**, or **Weekly**). For example, you want to set a timer for an awards show (**Once**), but it conflicts with the timer for a news program (**Mon.-Fri**, **Daily**, or **Weekly**). Select the timer for the news program and then select **Skip This Timer Once**.
3. Select **Yes** to close the **Timer Conflict Resolution** screen.
4. Select **Done**.

Maximum Number of Event Timers

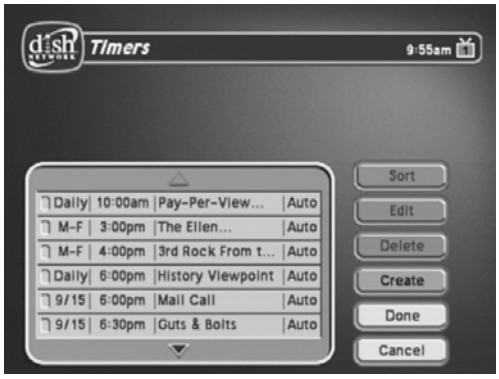
You can create a limited number of event timers. If you try to create more, the receiver displays a menu giving you the option to delete an existing timer. If you do not delete an existing timer, you will not be able to create any new ones.

Reviewing and Editing Event Timers

You can review and edit both automatic and manual event timers. If you need to change an event timer, you can edit almost any feature of an event timer.

Note: If you edit an automatic timer, it becomes a manual timer. The manual event timer operates at the times you set, not the actual program times.

1. Press the MENU button.
2. Select the **Timers** option. The receiver displays the **Timers** menu.



3. Select the event timer that you want to edit. A mark appears in the box next to the event timer.
4. Select the **Edit** option. You may change the **Timer Type**, **Timer Frequency**, or **Channel**. To do this, select each option that you want.
5. If you want to change the **Start Time**, the **End Time**, or the **Date**, select the **Edit Time** option to display the **Edit Time** for **Manual Timer** menu. Otherwise, skip to step 8 of this procedure.
6. Use the number buttons to enter the **Start Time** (this includes selecting AM or PM) and the **End Time** (this includes selecting AM or PM), if applicable.
7. Use the NUMBER PAD buttons to enter the **Date**.
8. Select the **Create Timer** option.

Deleting an Event Timer

1. Press the MENU button.
2. Select the **Timers** option. The receiver displays the **Timers** menu.
3. Select an event timer(s) that you want to delete. A check mark appears in the box next to the event timer(s).
4. Move the highlight to **Delete** and press SELECT on the remote.

Special Considerations When Using Event Timers

- **For Locked Programs** - You must enter the receiver password before you can create an automatic event timer. You can create a manual event timer for a locked program without entering the password. However, if you do this, when the event timer operates the receiver may display only an error or password entry menu. If you have set a VCR Event Timer, the VCR will record only that menu.
- **For Pay Per View Programs** - You must order a pay per view program before you can create a timer for it.
- **For Blacked Out Programs** - If you set a timer for a program that is blacked out in your area, when the event timer operates the receiver may display only an error. If you have set a **VCR Event Timer**, the VCR will record only that menu.

Event Timer Performance when the Receiver is Off

If the receiver is OFF at the time an Auto-Tune or VCR Event Timer is scheduled to operate, the receiver will turn ON. Once the event has ended, the receiver will turn OFF, unless you pressed any remote control or receiver front panel buttons during the time that the timer was active.

If the receiver is OFF at the time a Reminder Event Timer is scheduled to operate, the timer will turn the receiver ON and tune it to the channel you last watched. The receiver will then display the reminder menu. You will have a few seconds to respond. If you do not respond to the reminder menu, the receiver will turn OFF.

Setting Up the Receiver to Control a VCR (TV1 Menu Only)

To use VCR Timers, connect the receiver back panel outputs to the audio/video inputs on the VCR (see your VCR user's guide for instructions). Before you can use *VCR Timers*, you *must* set up the receiver to control the VCR. If the receiver *cannot* control the VCR, use an *Auto-Tune Timer* to tune the receiver to the channel you want to record. Use the timers built into the VCR to start and stop the VCR at the right times.

The receiver transmits an IR signal from the front panel to control the VCR. This signal is much stronger than the signal the remote uses, so it can bounce off walls or other objects on its way to the VCR. This works in most home setups. However, shelves or smoked glass doors between the receiver front and the VCR may block the signal. Also, if the signal must cross a very large room, or bounce off curtains, it may not be strong enough to control the VCR. Make sure that nothing blocks the signal, and that the signal can bounce off relatively nearby, light-colored, smooth surfaces.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

Note: VCR setup is only available through TV1 menus.

To set up TV1 to control a VCR, use Remote Control 1 at the nearby TV and do the following:

1. Press the MENU button.
2. Select the **System Setup** option.
3. Select the **Installation** option.
4. Select the **VCR Setup** option.

5. Set the VCR code by doing one of the following:
   - Enter the 3-digit VCR code number, from the tables starting on page 114, using the NUMBER PAD buttons.
   - Highlight each digit of the VCR code, and then press the UP or DOWN ARROW button until you reach the correct number and then press SELECT.
6. Make sure the VCR is connected to one of the TV1 outputs and is set to display from the TV1 output to the nearby TV. Consult your VCR user's guide.
7. Make sure the VCR is turned on. Insert a rewound tape on which you want to record.

   Note: The receiver only starts and stops the VCR recording, but does not turn ON the VCR, so you must do this yourself.
8. To test the new code, highlight the **Test** option. The receiver displays a message warning you to make sure the VCR is turned ON.
9. Press the SELECT button to start the test. Your VCR records for a few seconds, stops, and then rewinds. The receiver displays a message saying that your VCR test is complete. Follow the instructions on the message. If your VCR did not do the test, enter another code from the table. Repeat step 8 and this step.
10. Once you have found the correct VCR code, select the **Save** option to save the VCR code you entered and return to the **Installation and Setup** menu.

Setting Up a VCR for VCR Timers

After you have properly set up the receiver to control the VCR during VCR timers, complete the following to set up the VCR to operate when you set a VCR timer.

1. Turn the VCR on. Make sure you keep the VCR on because the receiver cannot turn the VCR on for you.
2. Insert a tape. A blank, rewound tape makes the best recording.
3. If you need to change the VCR settings (tape length or channel), see the instructions that came with your VCR.

Using Themes and Search

The **Themes and Search** feature of your receiver makes it easy to find programs to watch. This menu allows you to search for programming by themes (movies, sports, etc.) or by key words used in the program information.

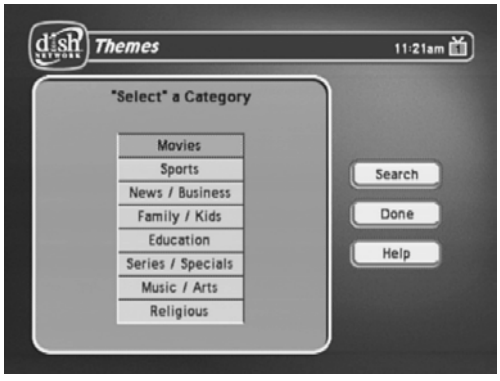
Themes

You can list and choose programs by the theme of their contents, for example, just movies or just sports. You can then quickly list programs based on that theme, and choose the program you want.

1. Open the **Themes and Search** menu by doing one of the following:

   - While watching a program, press the LEFT ARROW button.

   - Press the MENU button, and then select the **Themes** option.



2. Select the option for a category.
3. Select the desired program in the program list.

Note: If the program you highlighted is on some time in the future, the receiver will open the **Create An Event Timer** menu. See *Using Timers* on page 52 for more information.

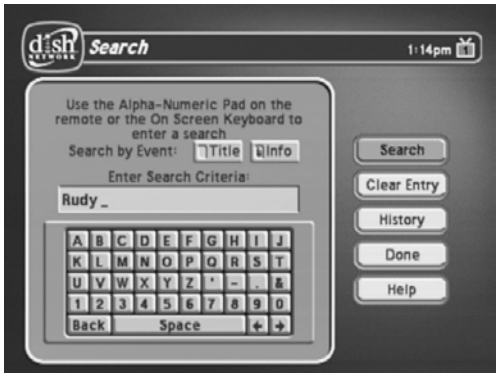
Search

1. Open the **Search** screen by doing one of the following:
   - Press the **Pound** (**#**) button on the remote control.

   - While watching a program, press the LEFT ARROW button to display the **Themes and Search** menu. Then select **Search**.

   - Press the MENU button, and then select the **Themes** option to display the **Themes and Search** menu. The select **Search**.

2. The **Search** screen displays with a virtual keyboard.

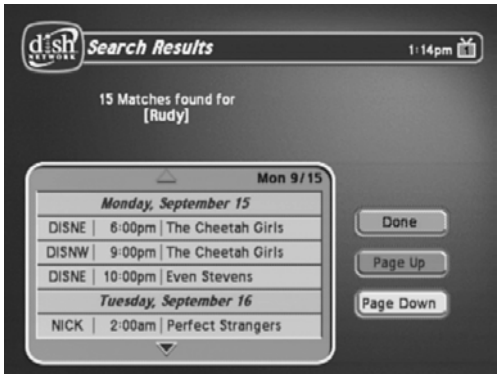

Search
1:14pm
Use the Alpha-Numeric Pad on the remote or the On Screen Keyboard to enter a search.
Search by Event:
Title
Info
Enter Search Criteria:
Rudy _
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z ' - . &
1 2 3 4 5 6 7 8 9 0
Back
Space
Search
Clear Entry
History
Done
Help

3. You can search for events two ways:
   - Select **Title** to search for the words that appear in the title of a program.
   - Select **Info** to search for words that are in the program description.

Tip: Use Search History instead of the keyboard if you've searched for the program or information before.

4. Enter the information in that space provided in one of two ways:
   - Use the virtual keyboard to type the information in the space provided.
   - Use the letters above the NUMBER PAD buttons while in the **Search** menu. For example, when looking for the channel and times to watch *Rudy Fremmel Presents*, you press 7 three times for an R, 8 two times for a U, 3 one time for a D, and 9 three times for a Y to spell the word "Rudy."

5. Select **Search**.



6. When the receiver displays the **Search Results** you have the following options:
   - Use the UP and DOWN ARROW buttons to scroll through the results.
   - Use the PAGE UP and PAGE DOWN buttons to scroll a page at a time.
   - Select **Page Up** or **Page Down** to scroll a page at a time.
7. Select one of the programs to watch, or select **Done** to close the **Search Results** screen.

   Note: If you select a program that is on now, the receiver tunes to that program. If you select a program that is on in the future, you will have to set a timer. See page 52 for more information on event timers.

Search History

After you have searched for programs or other information, your receiver builds a history. TV1 and TV2 keep separate **Search History** information. You can use the **Search History** instead of typing the information again with the virtual keyboard.

1. Press the Pound (#) button to open the **Search** screen.

2. Select **History** to display the **Search History** screen.

3. At the **Search History** screen, you have the following options:

   - **Search** - Select one of the items and then select **Search**.
   - **Edit** - Select one of the items and then select **Edit** to make changes.
   - **Delete** - Select one of the items and then select **Delete**.
   - **Delete All** - Select **Delete All** to clear the **Search History**.

Using Locks

When you unlock programming delivered by the TV2 outputs to your in-home cabling system, you are allowing all TVs connected to your in-home cabling system to have access to this programming. In this case, you must rely on the V-Chip technology and settings in the individual TVs to prevent viewing of inappropriate programming. Consult your TV user's guides for instructions to set up V-Chip protection.

Note: Locks for programming on the TV1 outputs for the nearby TV are set using the TV1 menus. Locks for programming on the TV2 outputs to remote TVs are set using the TV2 menus. The section below applies to locks set by either TV1 or TV2 menus. Locks set for TV1 programming are separate from locks set for TV2 programming.

How to Set Locks: A Two Step Process

1. Create the locks that you want.
2. Lock the receiver.

When the receiver is locked, anyone who wants to access locked items must enter the password.

When You Have Locked the Receiver

- If you try to access a locked item or open the **Locks** menu, the receiver displays a message prompting you to enter the password.
- The receiver allows you three tries to enter the correct password. If you fail to enter the correct password, the receiver does not allow more tries for several minutes.
- If you enter the correct password, you can access the locked item or open the **Locks** menu.
- If you exit a locked item or close the **Locks** menu, you must enter the password to access the item.

Locking and Unlocking the Receiver

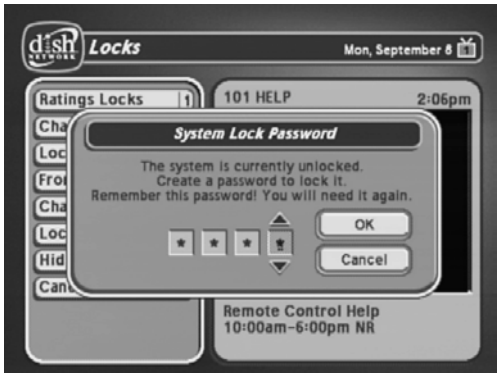
You must lock the receiver for any receiver **Locks** you set to take effect. To lock the receiver, you must first create a password. If you forget your password, you will need to speak with a Customer Service Representative. If you have a Personal Identification Number (PIN), you will need to give it to the Customer Service Representative. See page 69 for information on PINs.

1. Press the MENU button to display the **Main Menu**.

2. Select the **Locks** option to display the **Locks** menu.

   Note: If the receiver displays a message prompting you to enter a password, the receiver has already been locked.

3. Select the **Lock System** or **Unlock System** option. The receiver displays a message prompting you to enter a password to lock the system.



4. Enter and verify a password, using the NUMBER PAD buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** button. Press SELECT.
5. Memorize your password. From now on, you must enter this password to lock or unlock the receiver.
6. Select the **OK** option. Confirm the password by re-entering it. All the locks you have set are now in effect.

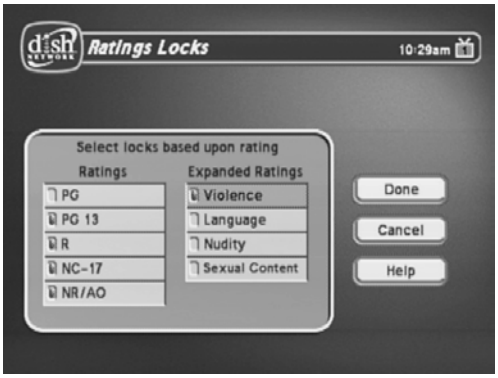
Creating or Changing Rating (Content) Code Locks

1. Press the MENU button.

2. Select the **Locks** option.

3. If the receiver is locked, enter the password using the number pad buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.

4. Select the **Ratings Locks** option.



5. Highlight the rating that corresponds to the lowest unacceptable audience age. Press the SELECT button to lock the highlighted rating.

   Note: All ratings that are more restrictive than the selected rating are also selected. For example, if you lock PG-13 rated programs, then all programs with the R, NC-17, and NR/AO ratings are also locked.

6. Select the expanded rating code(s), if you want to also lock these ratings.

7. To unlock a rating code, highlight the code and press SELECT.

8. Select the **Done** option to save the changes.

9. If the receiver is not locked, you must lock it to put the locks you just created into effect by selecting **Lock System**.

Creating or Changing Channel Locks

You can lock any channel, including pay per view channels.

1. Press the MENU button.

2. Select the **Locks** option.

3. If the receiver is locked, enter the password using the number pad buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.

4. Select the **Channel Locks** option.

5. Highlight the channel that you want to lock. If necessary, press the UP or DOWN ARROW button to see the channel. You can also enter each channel number using the NUMBER PAD buttons.
6. Press the SELECT button to lock or unlock the highlighted channel. If the box next to the channel has a mark, the channel is locked.
7. Select the **Done** option to save the changes.
8. If the receiver is not already locked, you must lock it to put the locks you just created into effect by selecting **Lock System**.

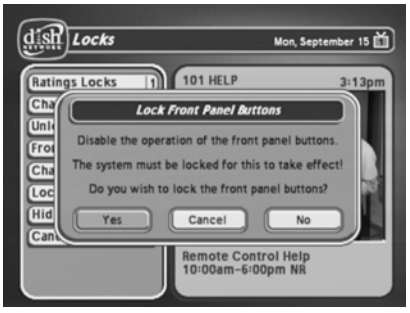
Locking and Unlocking the Receiver Front Panel (TV1 Only)

This keeps anyone from changing the channel, but it does not lock the remote control buttons. This option is only available on TV1 menus.

1. Press the MENU button.

2. Select the **Locks** option.

3. If the receiver is locked, enter the password using the NUMBER PAD buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.
4. Select the **Front Panel Lock** option to lock or unlock the front panel.



Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

5. Select the **Yes** option.
6. To activate the front panel lock, you must lock the receiver by selecting **Lock System**.

Locking and Unlocking Pay Per View Channels

This locks all pay per view channels. You also can lock one or more pay per view channels by using channel locks or rating locks.

1. Press the MENU button.

2. Select the **Locks** option.

3. If the receiver is locked, enter the password using the NUMBER PAD buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.
4. Select the **Lock PPV** or **Unlock PPV** option.

5. If the receiver is not locked, you must lock it to put the lock you just created into effect by selecting **Lock System**.

Hiding and Showing Adult Channels

When you hide adult channels, you keep the **Program Guide**, **Themes** lists, and the **Browse Banner** from displaying adult channels. It also keeps anyone from choosing such channels by using the UP or DOWN ARROW buttons or the remote control NUMBER PAD buttons.

1. Press the MENU button.

2. Select the **Locks** option.

3. If the receiver is locked, enter the password using the NUMBER PAD buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.
4. Select the **Hide Adult** or **Show Adult** option.

5. If the receiver is not locked, you must lock it to put the lock you just created into effect by selecting **Lock System**.

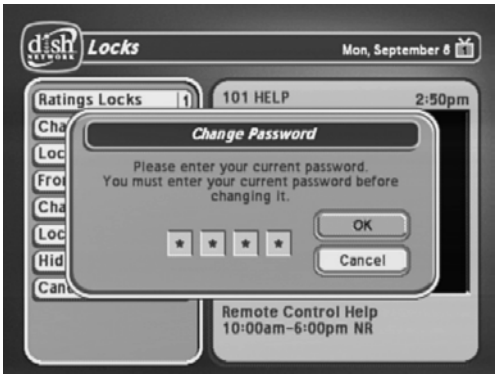
Changing the Receiver Password

1. Press the MENU button.

2. Select the **Locks** option.

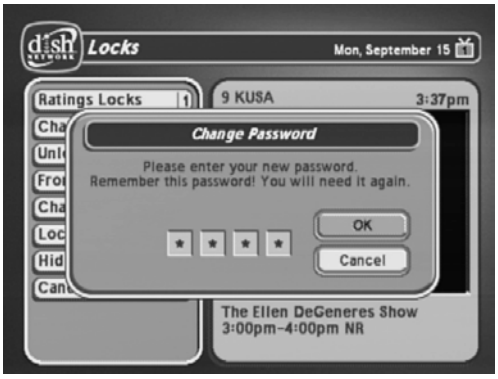
   If the receiver is locked, enter the password using the NUMBER PAD buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option.

3. Press the SELECT button.
4. Select the **Change Password** option.

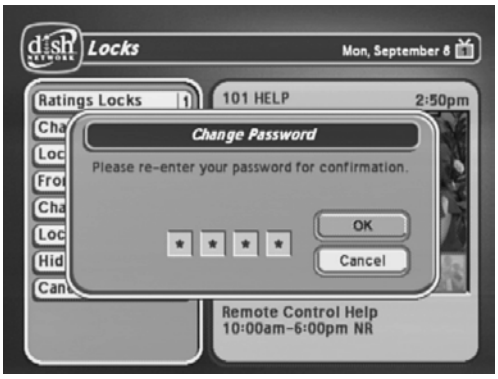


5. Enter the current password using the number pad buttons. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.

6. Enter the new password using the number pad buttons. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Select the **OK** option to change the password.



7. Enter the new password again for confirmation, using the NUMBER PAD buttons. The receiver continues to display stars (*) as you enter the digits of the password. As soon as you enter the fourth digit of the password, the receiver highlights the **OK** option. Press the SELECT button.



8. Memorize the new password. From now on, you must enter this password to lock or unlock the receiver.

Personal Identification Number

You can set up a Personal Identification Number (PIN) for call-in requests only. Anyone calling the Customer Service Center must provide this PIN to make any changes to your account. You may call the Customer Service Center at any time to set up a PIN.

If you forget your PIN, you will need to speak with a Customer Service Representative. The representative may ask for more information to make sure that you are authorized to make changes to your account.

Using Caller ID

Caller ID displays on your TV the names of people as they call you if you subscribe to **Caller ID** from your local phone company. To use this feature, make sure you have a phone line connected to the receiver and that the **Caller ID** feature is enabled. After you turn on **Caller ID**, it stays on until you decide to turn it off.

Caller ID Screens

When you receive a call, you will see a **Caller ID** popup screen.

You can select **OK** to eliminate the message. If you do nothing, it will disappear after 20 seconds.

If you are in a menu when a call comes in, you will see a different **Caller ID** popup screen.

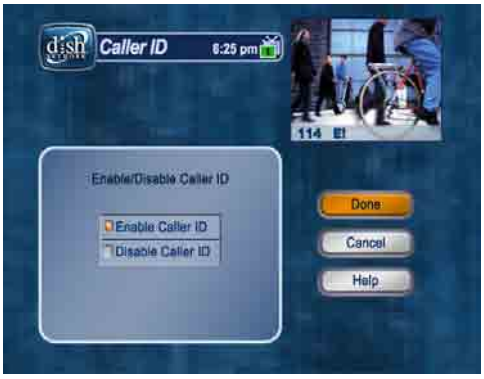
Turning Caller ID On and Off

1. Press MENU on the remote control.

2. Select **System Setup**.

3. Select **Installation**.

4. Select **Caller ID**.



5. Select **Enable Caller ID** or select **Disable Caller ID**.
6. Select **Done**.

Resetting to Factory Default Settings

Note: Resetting the receiver to factory default settings discards all **Favorite Lists** except the **All Chan** and **All Sub** lists.

Note: If you have set any locks on the receiver, and the receiver is locked, these locks will be kept. If the receiver is unlocked, any such locks will be lost; however, you cannot reset the receiver to factory default settings to bypass a lock or to discard a password you have forgotten. Call the Customer Service Center if you have forgotten your password.

Complete the following instructions if you want to reset the receiver to be the same as when it was shipped from the factory.

1. Press the MENU button.

2. Select the **System Setup** option.

3. Select the **Factory Defaults** option. When the receiver displays a **Warning** message, confirm that you want to reset the receiver to factory default settings.

Changing Program Languages

You may be able to change the language of some programs. An alternate language may not be available for all programs. Some programs, such as movies, show at the start whether an alternate language is available. An alternate language applies only to the audio part of a program and does not change the language used in the menus displayed by the receiver.

1. Press the MENU button.
2. Select the **System Setup** option.
3. Select the **Alternate Audio** option.

4. Select the language you want in the **Languages** list.
5. Select the **Done** option to save your language choice. The receiver displays the **System Setup** menu.

Control Other Devices with the Remote Controls

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

This section describes how to use Remote Control 1 or Remote Control 2 to control with a TV, a VCR, or other devices. For information on how to use the remote to control the receiver, see *Using the Remote Controls* on page 37. You can set up both remote controls to control the satellite TV receiver and up three other devices each. These devices can be a TV, a VCR or DVD player, and a third device.

Where the word "remote" is used in the following section, it applies to both Remote Control 1 and Remote Control 2.

Remote Control Modes

You can set the remote to four different modes to control the receiver or other devices. When you get the remote it's already set up to control the receiver. You must set up the remote to control a device like a TV or a VCR. See *Set Up the Remote to Control Other Devices*, below.

Use the remote control's mode buttons, SAT (satellite receiver), TV (for a TV), VCR (for a VCR or a DVD player), and AUX ("auxiliary," for a second TV, a second VCR, a tuner, or an audio amplifier) to set the remote to the right mode for the device. To change the mode, press the button for the device you want the remote to control. The mode button lights for two seconds to show you've set the remote to that mode.

Limited Mode

Tip: Limited mode is not used with amplifiers.

You can program your remote control in limited mode to keep from accidentally changing the channel on your TV or VCR. When you use the remote to control your TV in limited mode, you will only be able to use the POWER, MUTE, and VOLUME buttons. Also, when you use the remote to control your VCR in limited mode, you will only be able to use the power and VCR function buttons. The section *Setting Up the Remote to Control Other Devices* has a step that tells the remote control to go into limited mode.

Note: You can use Limited Mode for TV and VCR codes programmed in AUX mode.

Set Up the Remotes to Control Other Devices

Over the next few pages we tell you how to use the remote to control a TV, a VCR, a DVD player, a tuner, or an amplifier.

To use the remote to control other devices, you must first program it to control these other devices. You can do this by either following the instructions in *Set Up the Remote Control* below, or the *Scan for Device Codes* procedure described on page 74.

If you are programming the remote to control a combination device, such as a TV/VCR or a VCR/DVD, program the remote control in one mode, and then repeat the procedure in the other mode. For example, to program the remote to control a TV/VCR using code 748: Follow the instructions to program the remote to control the TV using code 748, and then repeat the instructions for the VCR using the same code.

Set Up the Remote Control

1. Turn the device on.

   Use the device's front panel buttons or its remote control.

2. Find the brand name of the device in the tables starting on page 113.

   If the brand isn't listed, see *Scan for Device Codes* on page 74.

3. Press and hold the mode button until all the other mode buttons light up, and then let go of the button.

   The mode button flashes.

   If you are repeating this procedure to program a combination device, be sure to press the correct mode button (for example, if you have a TV/VCR combination and you have already programmed the remote to control the TV, press and hold the VCR mode button as described above).

   For example, hold the TV mode button for a TV until all of the other mode buttons light. When you let go, the TV mode light will flash.

4. *For AUX mode only*:

   - Press 0 for a second TV.
   - Press 1 for a second VCR or DVD player.
   - Press 2 - for a tuner or amplifier.

   This step is for programming which kind of device that should be programmed in AUX mode. If you're not programming in AUX mode, skip to step 5.

5. Enter one of the three-digit device codes from the table using the number buttons.

   The three-digit device code should be for the brand name of your device that you found in step 2.

6. If you want to program limited mode, press 1. If not, skip to step 7.

   See *Limited Mode* for more information.

7. Press the POUND (#) button.

   If you entered the code correctly, the mode button flashes three times.

8. Press the blank POWER button to turn off the device. If the device does not turn off, go to step 10.

   If the code works, the device should turn off.

9. Turn the device back on and try some other appropriate buttons to make sure they work. If the code works for other buttons, stop here.

   Sometimes the blank POWER button works when other buttons don't.

10. If the code doesn't work, redo steps 3 through 9 with another device code from the tables.

    Try every code listed for you brand until one works for your device.

11. If you can't find a code that works try *Scan for Device Codes* that follows.

Scan for Device Codes

If the code for your device is not listed in the tables starting on page 113, use this procedure to scan the remote control's memory for the device code.

1. Turn the device on.

   Use the device's front panel buttons or its remote control.

2. Press and hold the mode button until all the other mode buttons light up, and then let go of the button.

   The mode button flashes.

   For example, hold the TV mode button for a TV until all of the other mode buttons light. When you let go, the TV mode light will flash.

3. *For AUX mode only*:

   - Press 0 for a second TV.
   - Press 1 for a second VCR or DVD player.
   - Press 2 - for a tuner or amplifier.

   This step is for programming which kind of device that should be programmed in AUX mode. If you're not programming in AUX mode, skip to step 4.

4. *For AUX mode only*: Press the STAR (*) button.

5. Press the blank POWER button.

   This puts your remote in the scan mode.

6. Press the UP or DOWN ARROW button repeatedly until the device turns off.

   As you press the UP or DOWN ARROW button, the remote is trying each code in the memory to see if it can turn off your device. When the device turns off, you have found a code that might work.

   Note: The mode button for the device will flash rapidly eight times when you've scanned all the codes for that device.

7.	Press the POUND (#) button.	This stores the code you found.
8.	Turn the device back on and try some other appropriate buttons to make sure they work.	Press the blank POWER button to turn the device back on. Try some other buttons to make sure they work. Sometimes, the blank POWER button works when other buttons don't.
9.	Repeat this procedure until you've tried all the codes.	You may need to repeat the scan to find the best code for your device.

Check the Device Codes

You can find out what device code you've set for each remote control mode.

1.	Press and hold the mode button until all the other mode buttons light up, and then let go of the button. The mode button flashes.	For example, hold the TV mode button for a TV until all of the other mode buttons light. When you let go, the TV mode light will flash.
2.	Press the POUND (#) button twice. Watch the mode light to determine your code. The mode button flashes the number for each digit of the device code, with a pause between the groups of flashes. A quick flash is for zero.	For example, if the code is 570, the mode button flashes five times, pauses, flashes seven times, pauses, and flashes once quickly.
3.	For AUX mode only. The first group of flashes tells you what the AUX mode controls. A quick flash (zero) before the three-digit code is for a TV; one regular flash is for a VCR or DVD player; and two flashes is for a tuner or amplifier.	For example, if the TV code is 570, the AUX mode button flashes once quickly (indicating 0 for TV), pauses, flashes five times, pauses, flashes seven times, pauses, and flashes once quickly.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

Remote Control Buttons

Control the Receiver

When you get the remote it's already set up to control the receiver. However, you must set up the remote to control the TV before you can use the MUTE and VOLUME buttons.

For information on the remote buttons that control the receiver, see *Using the Remote Controls* on page 37.

Control a TV (or a Second TV)

Only the buttons described here control a TV. Some of the buttons described here may not control your TV. Please see your TV user's manual for information about the TV's features.

TV Mode Button

You must first set up the remote to control the TV. See *Set Up the Remote to Control Other Devices*, beginning on page 72. Then, you must press the TV mode button to set the remote to TV mode. The TV mode button lights for two seconds to show you've set the remote to TV mode. Make sure you keep the remote in TV mode to use the buttons described here.

Note: You can set up the remote to control a second TV in AUX mode, the same way it controls the first TV in TV mode. See *Set Up the Remote to Control Devices* beginning on page 72.

TV/Video Button

If the TV has video input options, use this button to switch the TV video input.

Power Button

Press the TV POWER button to turn the TV on or off.

Mute Button

Press the MUTE button to turn the TV sound on or off.

Volume Button

Press this button to raise (+) or lower (-) the TV sound volume.

Up and Down Arrow Buttons

Use the UP and DOWN ARROW buttons to change channels on the TV.

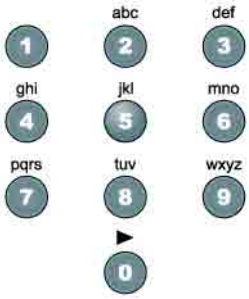
Note: These buttons do not change the channels on the TV if the remote control is in limited mode.

Select Button

The SELECT button works as the ENTER button for a TV.

Recall Button

Press the RECALL button to go back to the last TV channel you watched. Press it again to switch between the last two TV channels you watched.



Number Buttons

Use the NUMBER buttons to directly enter a different channel.

Note: These buttons do not change the channels on the TV if the remote control is in limited mode.

Control a VCR (or a Second VCR or a DVD Player)

Only the buttons described here control a VCR or DVD player. Some of the buttons described here may not control your VCR or DVD player. See the user's manual that came with your VCR or DVD player for information about the features.

VCR Mode Button

You *must first* set up the remote to control the VCR or DVD player. See *Set Up the Remote to Control Devices,* beginning on page 72. Then, you must press the VCR mode button to set the remote to VCR mode. The VCR mode button lights for two seconds to show you've set the remote to VCR mode. Make sure you keep the remote in VCR mode to use the buttons described here.

Note: You can set up the remote to control a second VCR or DVD player in AUX mode, the same way it controls the first VCR or DVD player in VCR mode. See *Set Up the Remote to Control Devices* beginning on page 72.

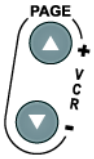
Note: You *must* set the remote to VCR mode to set it up to control a DVD player.

TV/Video Button

Use the TV/VIDEO button to switch the VCR between its TV mode and its VCR mode (see your VCR user's manual for information).

Power Button

Press the blank POWER button to turn the VCR on or off.



Page Up and Down Arrow Buttons

Use the PAGE UP and DOWN ARROW buttons to change channels on the VCR.

Note: If you are using the remote control in limited mode, the VCR will not change channels.

Recall Button

Press the RECALL button to go back to the last VCR channel you used. Press it again to switch between the last two VCR channels you used.

VCR Buttons

- Press the LEFT ARROW button to rewind a videotape or DVD.

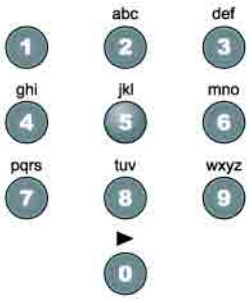
- Press the DOWN ARROW button to pause a videotape or DVD. Press this button or the PLAY button to go back to playing the tape or DVD.

- Press the RIGHT ARROW button to fast forward a videotape or DVD.

- Press the STOP button to stop playing or recording on a videotape or DVD.

- Press the RECORD button to record on a videotape.

- Press the SELECT button to play or to go back to playing a videotape or DVD.



Number Buttons

Use the NUMBER buttons to enter channel numbers.

Note: If you are using the remote control in limited mode, the VCR will not change channels.

Control a Tuner or Amplifier

Only the buttons described here control a tuner or amplifier. Some of the buttons described here may *not* control your tuner or amplifier. Please see the user's manual that came with your tuner or amplifier for more information.

AUX Mode Button

You *must* first set up the remote to control the device. See *Set Up the Remote to Control Devices,* beginning on page 72. Then, you *must* press the AUX mode button to set the remote to AUX mode. The AUX mode button flashes once to show you've set the remote to AUX mode. Make sure you keep the remote in AUX mode to use the buttons described here. Refer to *TV Mode Button* and *VCR Mode Button*, as appropriate, for the buttons available for use in AUX mode.

Power Button

Press the blank POWER button to turn the tuner or amplifier on or off.

Mute Button

Press the MUTE button to turn the sound off or on.

Volume Button

Press the VOLUME button to raise (+) or lower (-) the volume.

Up and Down Arrow Buttons

Use UP and DOWN ARROW buttons to change channels on the tuner or amplifier.

Select Button

The SELECT button works as the INPUT SELECT button for the tuner or amplifier.

Other Remote Control Features

Switch Between TV and AUX Device Volume Control

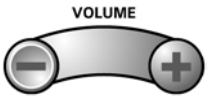
When you set up the remote to control a TV, the mute and volume buttons control the TV volume. However, if you want to use the AUX mode to control a tuner or amplifier and the device has a volume setting, you can set up the remote to control the device's volume instead of the TV volume.

To set the remote to control the device's volume:

1. Press and hold the AUX mode button for three seconds, and then release it. The AUX mode button will blink.

2. Press the POUND (#) button.

3. Press the plus (+) side of the VOLUME button.

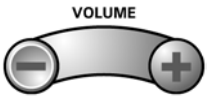


4. Press the 0 number button.

5. Press the POUND (#) button.
   The AUX mode button flashes three times.

6. Press the SAT mode button.

7. Press the plus (+) and minus (-) sides of the VOLUME button.
   The device's volume changes and the AUX mode button lights instead of the TV mode button.



To set the remote back to control the TV volume:

1. Press and hold the TV mode button for three seconds, and then release it. The TV mode button will blink.

2. Press the POUND (#) button.

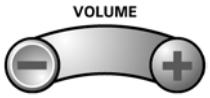
3. Press the plus (+) side of the VOLUME button.

4. Press the 0 number button.

5. Press the POUND (#) button.
   The TV mode button flashes three times.

6. Press the SAT mode button.

7. Press the plus (+) and minus (-) sides of the VOLUME button.
   The TV's volume changes and the TV mode button lights instead of the AUX mode button.



Testing the System

Starting a Test

1. Press the MENU button.

2. Select **System Setup**.

3. Select **Diagnostics**.

Telephone Connection Test

This test checks that the receiver telephone connection is correct. Select the **Connection** option to begin the test. The receiver displays a message asking you to wait until the test is done.

- If the telephone connection is correct, the receiver displays a **Phone Connection OK** message.
- If the receiver highlights the **Done** option, select the **Dial Out** option so the receiver can make a toll-free call to the Customer Service Center. The receiver displays a message asking you to wait until the call is done. When the call is done, select the **Done** option to exit the test menu.

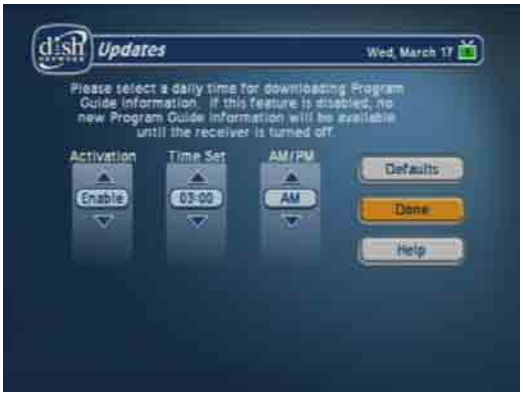
- If the telephone line is not connected properly, the receiver displays a failure message. In this case, check the telephone connection and then repeat the test.

  Note: If you have the receiver connected to a DSL (Digital Subscriber Line) phone line, it may cause this test to fail. If so, you will need to install a DSL filter between the receiver and the phone jack on the wall. You should be able to get a DSL filter from your DSL provider, or your local electronic parts store.

System Updates

Your receiver includes a feature that allows you to set the time in which your receiver downloads **Program Guide** information. When the **Updates** feature is enabled, the receiver will shut off every day at the same time receive a software update. The default time for this feature is 3:00 a.m.

1. Press the MENU button.
2. Select **System Setup**.
3. Select **Installation**.
4. Select **Updates**.



5. Highlight the **Activation** field.
6. Press the UP or DOWN ARROW button to enable or disable the automatic update feature.

   Note: If you disable this feature, no new **Program Guide** information will be available until the you turn off the receiver.
7. Highlight the **Time Set** field.
8. Use the NUMBER PAD buttons to set the time that you want the system to update the **Program Guide**.
9. Highlight the **AM/PM** field.
10. Press the UP or DOWN ARROW button to set **AM** or **PM**.

11. When you are finished making changes, select **Done** to close the screen.

    Note: If you do not want to save your changes or if you want to reset the time the system updates the **Program Guide**, select **Defaults** and then select **Done**.

Chapter 4

Dish Antenna Installation

These instructions guide you through the installation of a satellite system which includes your receiver (included with this manual), and a DISH Pro DISH 500 antenna system that can be identified by the DISH Pro logo shown below.

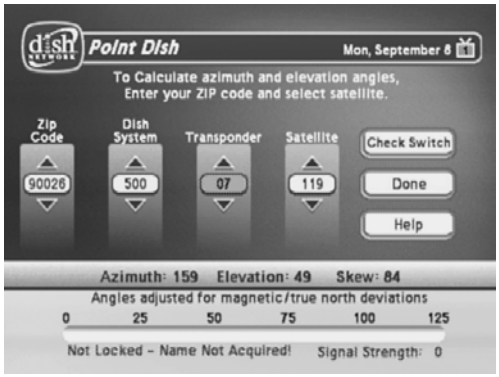
Installing a DISH 500 Antenna

The first step in installing your dish antenna is to assemble the satellite dish, mount it, and point it in the general direction of a satellite. To do this, follow these instructions:

Finding the Satellites

You need to find the satellites in the sky. To do this, you need to know the azimuth angle (the south, southeast, or southwest direction to the satellites) and the elevation angle (the angle up to the satellites) from your location, and the skew angle.

1. Make sure that the batteries are fresh in both remote controls, and are installed properly. If needed, make sure that the remote is in SAT mode to control the satellite receiver.
2. Make sure your satellite receiver is connected to your TV(s) and confirm that the remote controls are controlling the menus properly using the instructions in *Chapter 2*. Turn ON the television and receiver.
3. Display the **Point Dish** menu on the nearby TV by pressing MENU and then 6-1-1 using Remote Control 1 (unless your TV already displays this menu).



4. Enter your ZIP code in the **ZIP Code** field.
5. Make sure that **500** is shown under **Dish System**.

Tip: Remote Control 1 is used to control TV1 menus on the nearby TV. Remote Control 2 is used to control TV2 menus on the remote TV(s).

Azimuth: _____

Elevation: _____

Skew: _____

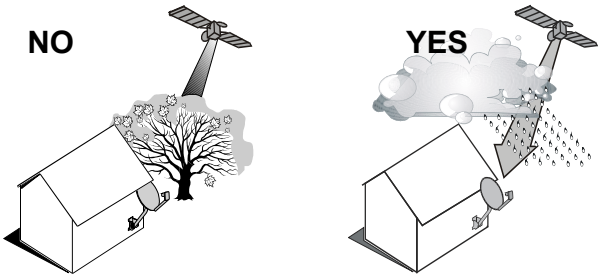
6. The menu displays the azimuth, elevation, and skew angles. Write down these numbers in the blanks provided in the margin.

Mounting the Dish

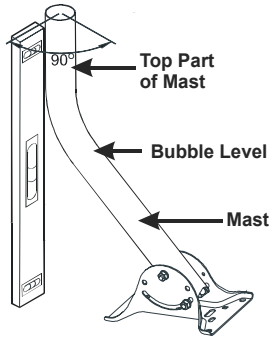
1. Using the azimuth and elevation angles, find a location for the satellite dish which can be pointed towards the satellites located at these angles. With a compass, find the required azimuth angle. Then, use the elevation angle to find out how high the satellites are in the sky from your location.

   Make sure nothing blocks the line of sight between the dish and the satellites.

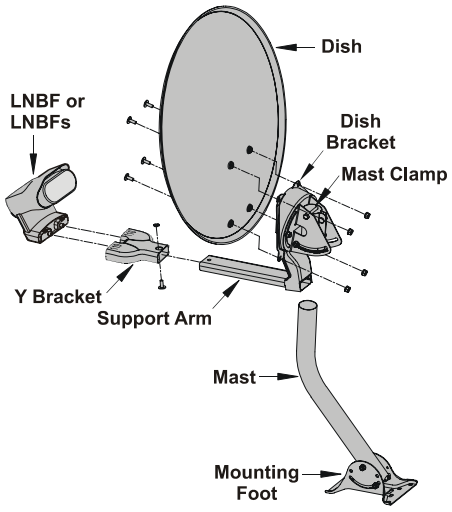
2. Mount the mast to a solid surface so that the dish antenna cannot move or be bumped out of adjustment. Keep in mind that physical and environmental conditions can block your satellite dish's ability to receive a clear satellite signal. The conditions to be aware of are: Eaves and overhangs on your building or house, wind, plant growth, and deterioration of the mounting surface. Never mount to a tree or a public utility pole.



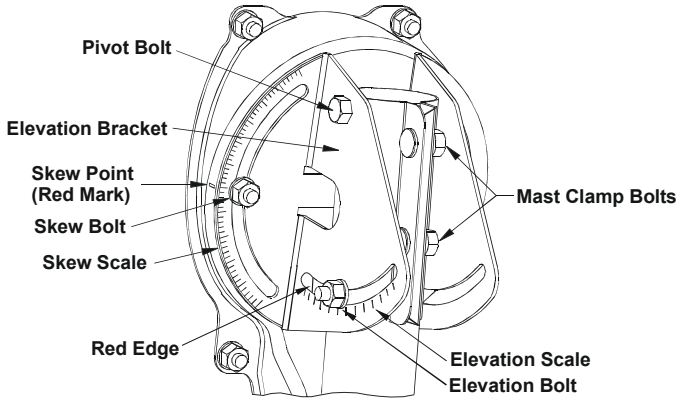
3. Align the top part of the mast so that it is absolutely vertical, as shown below. If the top part of the mast is off vertical by only a few degrees, it will be difficult or maybe even impossible for you to find the satellites. Take at least two readings with a bubble level, on the upper mast, that are 90 degrees apart from one another.



4. Assemble the satellite dish as shown below, except do not attach the Y-bracket or LNBF at this time.



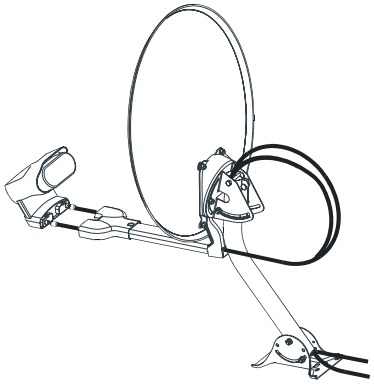
5. Loosen both skew bolts and set the skew by rotating the dish mounting bracket to align the red mark with the required angle on the skew scale which you wrote down on page 86. Tighten the skew bolts securely to keep the dish from rotating. **Once the skew is set, *do not* try to fine-tune this angle when aiming the dish.**



6. Set the elevation by tilting the dish mounting bracket to align the red edge with the required angle from page 86 on the elevation scale. Tighten the elevation bolts, but *do not* tighten the pivot bolt at this time.
7. Slide the dish assembly down onto the mast. Make sure the pivot bolt rests on the top of the mast. Turn the dish assembly so that it points in the general direction of the satellites, using the azimuth angle from page 86.
8. Thread two RG-6 coaxial cables through the mast, support arm, and the Y-bracket. These cables should be long enough to run from your receiver to your LNBF.

   Note: See *Running Coaxial Cables* on page 99 for cable installation guidance.

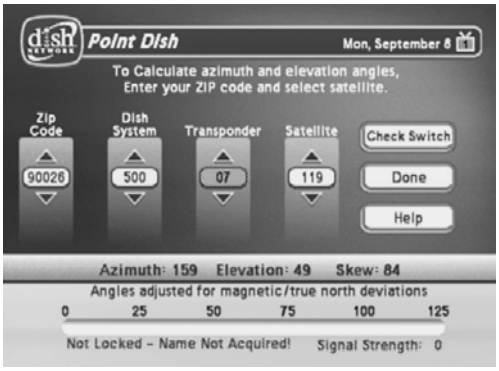
Note: You can have as much as 200 feet of cable between the DISH Pro LNBF and the DISH Pro receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say "Swept tested for 2150 MHz." If you have any doubt about this, ask your DISH Network retailer, examine the cable's outer jacket, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.



9. Attach the Y-bracket, using the Y-bracket screw.
10. Connect the RG-6 cables from the two **SATELLITE IN** connections on the back of the receiver *directly to the two ports* of the DISH Pro Twin LNBF, as shown below. Be sure there are no multi-dish switches between the LNBF and the receiver.

Tighten all of the coaxial cable connections *only* by hand. If you use a wrench, you may over-tighten the connections and damage your equipment. Such damage is *not* covered by the limited warranty.

11. Attach the LNBF to the Y-bracket using the two LNBF screws.
12. You should see the **Point Dish** menu on your nearby TV. If not press MENU and then 6-1-1 on Remote Control 1.



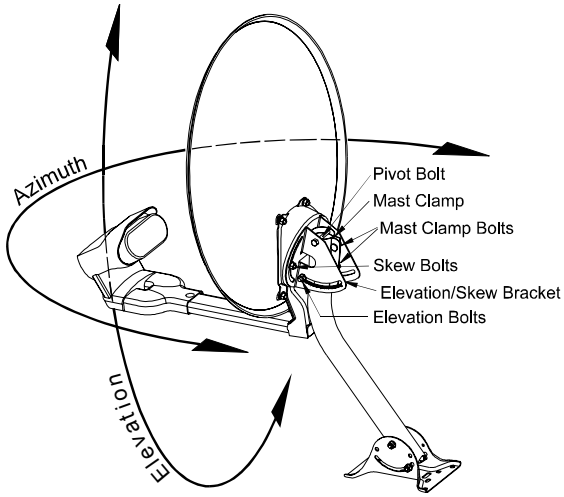
13. Select **Check Switch**. The **Check Switch** screen will open.
14. Select **Retest**. The receiver shows you a message that it is checking the system.

15. When the check switch procedure finishes, you will see an **Installation Summary** screen similar to the one below. The information for **Satellite Input 1** and **Satellite Input 2** should be the same:
    - **Satellite** - **Conn** twice.
    - **Transponder** - **X** twice. This is OK and does not indicate a problem with the receiver.
    - **Device Type** - **Twin** twice. This indicates that your receiver has confirmed the connection with your DISH Pro Twin LNBF is working.

16. Select **OK** to return to the **Point Dish** screen.
17. Make sure the screen shows **119** under **Satellite**. If not, move the highlight to **119** and press either the UP or DOWN ARROW.

    Note: The signal strength bar is used to help you aim the dish by showing the strength of the signal you are receiving. Look at the signal strength bar while you aim the dish.

    Note: Don't stand in front of the dish while you aim it, because your body will block the satellite signal. After you adjust the aim, let go of the dish so that you can get a good signal reading after the dish settles back in place by itself.
18. Turn the dish back and forth ***very slowly,*** until the signal strength bar turns *green*. This shows you've found the signal.



Tip: Have one person aim the dish while another watches the signal strength or listens to the signal tone.

Note: If you cannot find the signal, turn the dish back to the first azimuth angle. Then, loosen both elevation bolts *just enough* so you can tilt the dish. Tilt the dish elevation up by two degrees, and then tighten both bolts. Now, turn the dish back and forth again. *If you still can't find the signal*, tilt the dish up again *very slightly* and turn the dish back and forth until you find the signal. ***Do not change the skew setting.***

19. When the signal strength bar is *green*, turn the dish back and forth ***just a little***, to where the signal strength bar shows the strongest signal. When you find the strongest signal, tighten both mast clamp bolts. Then loosen both elevation bolts, *just enough* so you can tilt the dish. Tilt the dish up and down ***just a little***, to where the signal strength bar shows the strongest signal. When you find the strongest signal, tighten all bolts in the dish assembly so the dish cannot be moved.

20. You are now ready to verify reception from both satellites. Select the **Check Switch** option. When the **Check Switch** menu opens, select **Retest**. The receiver shows you a message that it is checking the system. When the procedure is finished, you will see an **Installation Summary** screen. This screen may look different than the one shown below.
    - **Satellite** - **119** in **Port 1** and **110** in **Port 2**.
    - **Transponder** - **All** twice. This is OK and does not indicate a problem with the receiver.
    - **Device Type** - **Twin** twice. This indicates that your receiver has confirmed the connection with your DISH Pro Twin LNBF is working. Press OK to exit this menu."
    - **Status** - **Satellite reception verified**.

21. If you do not see **110** under **Port 2**:
    - Make sure the skew angle you wrote down on page 86 is exactly the same as the skew angle you set in step 5 on page 87. If it is not, reset the skew angle as described on page 87. After you reset the skew angle, go back page 89 and start over from step 16.
    - If **119** is shown under **Port 2**, move the dish approximately 9° to the east and restart the procedure at step 12.

22. Look at the **Point Dish** menu. If you have good signal strength with **119** is indicated by a green signal bar, select **110**. If you have good signal strength on **110**, go to step 23.

If you do not have good signal strength with **110**, go back to step 18, and fine-tune the dish but with **110** selected instead of **119**. While the **110** and **119** signals will not be equal, you should be able to fine-tune the dish until you have the strongest possible signal from both satellites.

23. Select **Cancel** to exit the **Point Dish** menu. An **Attention** screen will open asking the mounting and positioning of your dish is complete with a **Locked** indication in the **Point Dish** screen. If the answer is yes, select **Yes**.

    *If the answer is **No,** you will need to repoint your dish following the preceding steps until the mounting and positioning is complete and you do have the **Locked** indication*.

24. After you select **Yes**, the receiver will begin taking a software upgrade. You will see a **Warning** that **Vital program information will now be downloaded into your receiver**. You will also see a status bar showing the progress of this upgrade.

    Once the software upgrade is complete, you will see a message that your receiver's memory is being upgraded.

    Do not disturb the receiver while the receiver's memory is being upgraded.

25. When the memory upgrade is complete, you should be watching TV. Your dish antenna installation is now complete.

    Note: If you are installing other DISH Pro or DISH Pro Plus receivers, be sure to run **Check Switch** on all of them, and allow them to take the necessary software upgrade.

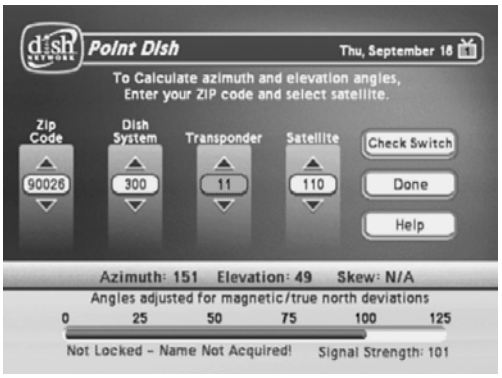
Installing a Multiple Dish DISH Pro System

Note: You cannot use DISH Pro LNBFs and switches (those marked with the DISH Pro logo) with Legacy switches and LNBFs (those without the DISH Pro logo). You must install your DISH antenna system with either all DISH Pro LNBFs and switches or all Legacy LNBFs and switches. If you mix the two, the system will not work.

Note: You can have as much as 200 feet of cable between the DISH Pro LNBF and the DISH Pro receiver. However, you must use only RG-6 coaxial cables rated for 950 to 2150 MHz. Some cables may say "Swept tested for 2150 MHz." If you have any doubt about this, ask your DISH retailer, examine the cable's outer jacket, or look on the container the cable came in. Do not use cable company TV cables or cables from other satellite TV systems not rated for 950-2150 MHz. These other cables may cause signal loss. Do not use existing cables such as RG-59. Also, be sure that any outdoor connections are made using waterproof F-connectors.

Once you have installed the DISH 500 with its DISH Pro Twin LNBF using the preceding instructions, you can add a single satellite dish with a DISH Pro LNBF and switch as follows:

1. Turn on the television and the receiver if they are not already on. You should see the **Point Dish** screen. If not, open the **Main Menu** and press 6-1-1 on the remote.



2. Select the satellite your dish will be pointed toward.
3. Select **300** under the **Dish System**.

Azimuth: _____

Elevation: _____

4. Use the number buttons on the remote to enter your ZIP code to get the necessary azimuth and elevation. Write these numbers down in the spaces provided in the margin.
5. Mount the dish antenna and multi-dish switches following the mounting instructions that came with them and the *DISH Pro Wiring Diagrams* starting on page 94.
6. Connect two RG-6 cables from both **SATELLITE IN** connections on the receiver to two available ports on the switch(es).
7. Connect the LNBF on the dish antenna to LNBF port 1 on the switch(es) using RG-6 cable.
8. Select **Check Switch** from the **Point Dish** menu. When the **Check Switch** screen opens, select **Retest**.
9. When **Check Switch** is complete, you will see an **Installation Summary** screen similar to the one shown next. It will show a connection ("Conn" next to satellite) and **Single** device under **1** (Dish Input). It may also show an **X** on the Transponder line**.** This is okay and does not mean there is a problem with the system.

10. Press CANCEL to exit back to the **Point Dish** menu.
11. Point the dish for the strongest possible signal, following the instructions that came with it.

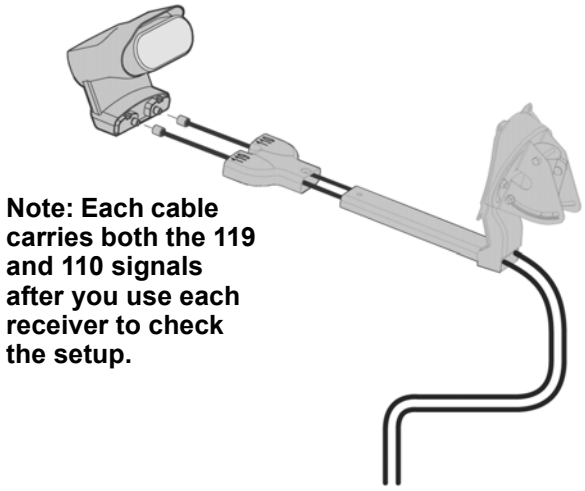
12. Connect two RG-6 cables between both ports on your DISH Pro Twin LNBF and your switch(es) using the switch instructions and the *DISH Pro Wiring Diagrams* that start on page 94.
13. Select **Check Switch** from the **Point Dish** menu. When the **Check Switch** menu opens, select **Retest**. When the procedure completes, you will see the **Installation Summary** screen again. This time you should see confirmation for all satellites your dishes are pointed at, and "Satellite reception verified." You should also see that the switch(es) in your system has been correctly identified.

    Refer to the DISH Pro wiring diagrams for examples of installation summary screens.
14. Press CANCEL to exit this menu, and then **Done** to exit the **Point Dish** screen. If you have any other receivers in your system, make sure you run **Check Switch** on each of them, and allow each to take the software upgrade, as needed.

DISH Pro Wiring Diagrams

DISH 500, One DISH Pro Twin LNBF

This diagram leaves out grounding to be clear. Make sure you ground the system per the *National Electrical Code* (NEC) and all local electrical codes.



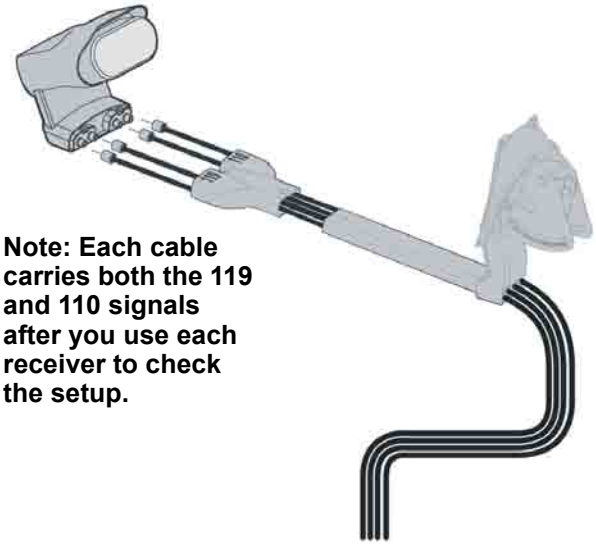
Note: Each cable carries both the 119 and 110 signals after you use each receiver to check the setup.

To two DISH Pro Receivers or one DISH Pro Plus Receiver

When you set up your system following this diagram and run **Check Switch** the **Installation Summary** screen should look similar to the one shown below.

DISH 500, One DISH Pro Quad LNBF

This diagram leaves out grounding to be clear. Make sure you ground the system per the *National Electrical Code* (NEC) and all local electrical codes.



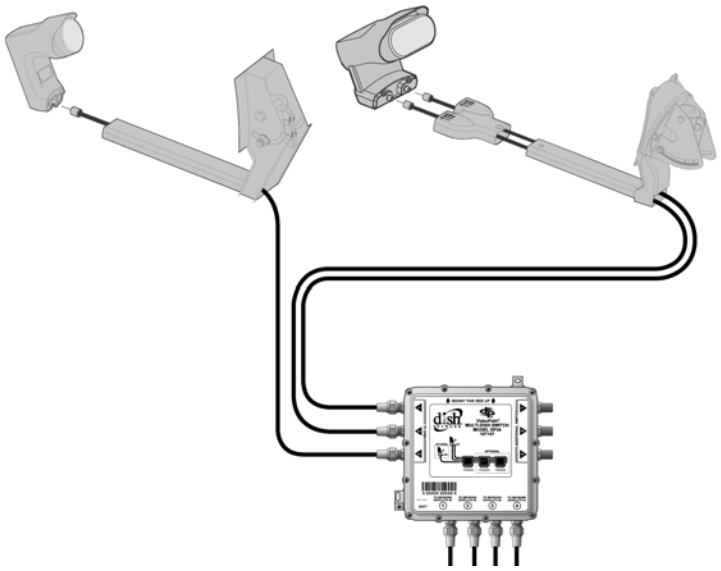
Note: Each cable carries both the 119 and 110 signals after you use each receiver to check the setup.

To four DISH Pro Receivers or two DISH Pro Plus Receivers

When you set up your system following this diagram and run **Check Switch** the **Installation Summary** screen should look similar to the one shown below.

DISH 500 with a DISH Pro Twin LNBF, One DISH 300 with a DISH Pro LNBF, DP34 Switch

This diagram leaves out grounding to be clear. Make sure you ground the system per the *National Electrical Code* (NEC) and all local electrical codes.



To four DISH Pro Receivers or two DISH Pro Plus Receivers

When you set up your system following this diagram and run **Check Switch** the **Installation Summary** screen should look similar to the one shown below.

DISH 500, DISH 300, One DISH Pro Twin LNBF, One DISH Pro Dual LNBF, Two DISH Pro 21 Switches

This diagram leaves out grounding to be clear. Make sure you ground the system per the *National Electrical Code* (NEC) and all local electrical codes.

When you set up your system following this diagram and run **Check Switch** the **Installation Summary** screen should look similar to the one shown below.

Two DISH 300s, Two DISH Pro Dual LNBFs, Two DISH Pro 21 Switches

This diagram leaves out grounding to be clear. Make sure you ground the system per the *National Electrical Code* (NEC) and all local electrical codes.

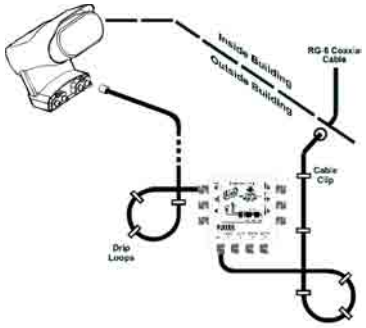
When you set up your system following this diagram and run **Check Switch** the **Installation Summary** screen should look similar to the one shown below.

Running Coaxial Cable

1. Using the shortest path possible, run the coaxial cable(s) from the ground block or switch to the satellite receiver(s). Do *not* kink or pinch any cable. Cables should be bent *only* in gentle curves.

   Do *not* use a longer cable between the satellite dish and the receiver than is specified in the DISH Pro or Legacy system installation instructions. If your system requires more cable than the limit specified in these installation instructions, you should consider having the system professionally installed.

2. Put a drip loop in each cable at a point before it enters the building. A drip loop allows moisture to drip from the cable before it runs into the building or any outside connection (for example, a multi-dish switch).



FOR EXAMPLE ONLY

   Before drilling any holes in the wall or roof of your building, make sure that there are no wires or pipes in the area of the holes. If you are not comfortable doing this, contact a professional in your area. Make sure that you follow all safety instructions and building codes.

3. Locate each receiver inside the building, against or near an outside wall. Then drill a hole through the outer wall to pass a cable inside the building. If a receiver is located in an interior room, run a cable through the outside wall, and into an attic, basement, or crawl space in order to reach the receiver.
4. Seal all holes that you drill in the building with silicone or other weather-proof sealant after installation. Once each cable is inside the building, you may attach it to a wall receptacle or directly to a receiver.

   Tighten the back panel coaxial cable connections *only* by hand. Using a wrench may over-tighten the connections, causing damage. Such damage is *not* covered by the Limited Warranty in the *User Guide* that came with the system.

Notes

Chapter 5

Reference

Troubleshooting Tables

Use these tables if you have problems using the system *before* calling the Customer Service Center. Many problems arise from misunderstandings of how the system works, especially when you are just becoming familiar with it. These tables cover many problems, usually with a simple solution for each one. To solve a particular problem, do the following:

1. Review the section in this *Guide* that relates to the problem.
2. If you cannot find a solution, then find the section in the following tables that relates to the problem.
   - Read the *What's Happening* column until you find the problem.
   - Read the information in the *Possible Reason* column.
   - Try each of the suggested solutions in the *What to Do* column.
3. For more information, call the Customer Service Center at 1-800-333-DISH (3474), or see *www.dishnetwork.com*.

   Note: Before calling the Customer Service Center, have ready the date of purchase and either your customer account number, the receiver conditional access number, or the receiver model number. Display the *Important System Information* menu to find these numbers (See *Ordering Your Programming* on page 4). Also, write down any error messages that the receiver displays on the television screen.

Reference

On-Screen Messages

This table describes some on-screen messages in the order of their *message numbers*. Find the message number in the upper right corner of the message displayed on your TV screen, and then find the matching number in this table.

Message Number	Possible Reason	What to Do
001	• There may be a problem with the multi-dish switch.	• Check the coaxial cables and their connections to and from the multi-dish switch. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). If this does not work, call the Customer Service Center for help.
002	• Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal, or there may be other interference.	• Note the local weather conditions. Remove any snow or other debris which may have collected on the satellite dish. Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. • Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the **Point Dish/Signal** menu. Consult your installer to re-aim the dish, if necessary, to obtain the strongest possible signal.
003, 004	• The wrong type of coaxial cable may be used in the system, or the cable run length may be too long. Or, there may be a problem with the multi-dish switch.	• Make sure the system uses RG6 coaxial cable; if not, call your dealer or installer. • Check the dish-to-receiver cable run length; if it is over 200 feet, call your dealer or installer. • Check the coaxial cables and their connections to and from the multi-dish switch. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). If this does not work, do the **Check Switch** test.
005	• The receiver may not yet have been authorized via the satellite signal. The satellite dish may have moved so that it is no longer picking up the satellite signal. The cable connections may have loosened or have moisture inside. There may be an interruption of the satellite signal.	• If you have authorized the receiver, wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). • Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. • Check that the **Signal Strength** bar in the **Point Dish/ Signal** menu is green and displays the word **Locked**. If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center for help.
006	• The receiver may not be connected to an active telephone line. • The credit limit may have been suspended.	• You *must* connect the receiver to an active telephone connection at all times. If you install two or more receivers, you *must* connect *each* receiver to an active telephone connection at *all* times. • Call the Customer Service Center for help checking the credit limit, and/or to get authorization to make a purchase.
008	• Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.	• Install a DSL filter between the receiver and the telephone wall jack. You can obtain the filter from your DSL provider.
011, 012	• Viewers in specific areas are prohibited from watching certain programs. *For example*, viewers who live close to a particular football stadium may be prohibited from watching football games that are played in that stadium.	• Remember that the program providers specify which programs are "blacked out" for which viewers, *not* DISH Network™.

Message Number	Possible Reason	What to Do
013, 014	• You may have tried to tune to a program on a channel which you have not bought.	• You *must* buy a channel *before* you can tune to a program on that channel. Call the Customer Service Center to buy the channel, or if you believe this message was displayed by mistake.
015	• You may have just plugged in the receiver, and it is acquiring the satellite signal. Or, the receiver may have temporarily lost the signal.	• Wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. • Check that the **Signal Strength** bar in the **Point Dish/ Signal** menu is green and displays the word **Locked**. If not, contact your installer to re-aim the satellite dish.
018	• The receiver may not be connected to an active telephone line. • The credit limit may have been exceeded.	• You *must* connect the receiver to an active telephone connection at all times. If you install two or more receivers, you *must* connect *each* receiver to an active telephone connection at *all* times. • Call the Customer Service Center for help checking the credit limit, and/or to get authorization to make a purchase.
022	• The receiver may not yet have been electronically linked with the via the satellite signal. The satellite dish may have moved so that it is no longer picking up the satellite signal. The cable connections may have loosened or have moisture inside. There may be an interruption of the satellite signal.	• If you have authorized the receiver, wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). • Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. • Check that the **Signal Strength** bar in the **Point Dish/ Signal** menu is green and displays the word **Locked**. If not, contact your installer to re-aim the satellite dish. If you have not authorized the receiver, call the Customer Service Center for help.
026	• The receiver may have temporarily lost the satellite signal.	• Wait a few minutes to see if the message is removed. Make sure that all required cables are in place, and check that all cable connections are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. • Check that the **Signal Strength** bar in the **Point Dish/ Signal** menu is green and displays the word **Locked**. If not, contact your installer to re-aim the satellite dish.
028	• Pay Per View events cannot be purchased until the receiver has downloaded new software.	• Turn the receiver off via the remote "Power" button and do not disturb for the next 15 minutes. To change channels, press the "Up" or "Down" arrow button on the remote or use the "Recall" button to return to the last viewed channel.
032	• You may have tried to set a *VCR Event Timer* without having set up the receiver to control the VCR.	• You *must* set up the receiver to control the VCR *before* you can set a *VCR Event Timer*. See the *Using the System* for instructions.
059	• You may have tried to close an installation menu without having done the **Check Switch** test.	• If your setup includes a multi-dish switch, you *must* do the **Check Switch** test.
060	• You may have aimed the satellite dish at one satellite, but selected the option for another satellite on the **Point Dish/Signal** menu.	• Make sure that you have selected the option for the right satellite on the **Point Dish/Signal** menu. • Make sure that the cable(s) for the satellite you have selected are connected to the LNBF that receives signals from that satellite.
061	• You may have set up the receiver to accept a transmission (a "download") of the latest operating software via the satellite signal.	• It is *very* important for the receiver to get the latest operating software, so let the receiver do so. The "download" may take several minutes. Do *not* disturb or unplug the receiver during this time.

Message Number	Possible Reason	What to Do
074	• The receiver gives you three chances to enter the correct password. If you fail to do so, the receiver "times out" and will not allow you to try again for several minutes.	• Wait a few minutes and then try again to enter the password. **Note:** The "time out" feature is designed to prevent someone from trying password after password until he or she happens to guess the right one and so gains unauthorized access to the receiver.
093	• You may have set up the receiver to reset itself back to the "factory defaults," *that is*, the settings it had when it was shipped from the factory.	• If you want to reset the receiver to its factory default settings, select the **Yes** option. If not, select the **No** option.
587, 588	• You may not have connected the receiver to an active telephone line. Or, the telephone line may be defective. • Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.	• Connect the receiver to an active telephone line. Make sure that the telephone line to which you connect the receiver is working properly. **Note:** To be able to order pay per view programs, you *must* keep the receiver connected to an active telephone line at all times. If your setup includes more than one receiver, this applies to *each* receiver. The receiver uses the telephone line to make toll-free calls, usually in the middle of the night, to send information to the Customer Service Center. • Install a DSL filter between the receiver and the telephone wall jack.

DISH Pro Twin LNBF

What's Happening	What's Wrong	What You Can Do
When you run Check Switch, you do not see "Twin" identified as a Device or LNBF. All entries show "X"s.	• The DISH Pro Twin LNBF may not be properly connected. • Cables may be too long, over 200 feet. • Cables may not be rated for 2150 MHz. • You may have DISH Pro Adapter installed on a DISH Pro receiver. • May have a non-DISH Pro switch or LNBF or incompatible accessory device* in the system.	• Check all cable connections in your system and run Check Switch again. • Make sure cable length between receiver and DISH Pro Twin does not exceed 200 feet. Rerun check switch. • Make sure cable is rated for 2150 MHz. Rerun check switch. • Remove the DISH Pro Adapter; this device is only for non-DISH Pro receivers. Rerun check switch. • Remove any non-DISH Pro switches/ LNBs or incompatible accessory devices* from the system. All LNBs and switches must be DISH Pro. Rerun check switch.
When you run Check Switch, you see "Twin" identified as the Device/LNBF and Satellite shows "Conn" but you do not see "Satellite Reception Verified".	• The DISH Pro Twin LNBF is connected but no satellite signal is present.	• Check the point dish/signal screen to confirm you have satellite signal. If not, check your dish antenna to ensure the DISH Pro Twin is installed properly, the dish is pointed/peaked on the satellite signal and there is nothing blocking the signal path to the dish. Rerun check switch.
When you run Check Switch, you see "Satellite Reception Verified" but you see "Feed" instead of "Twin" identified as the Device/LNBF.	• The DISH Pro Twin is connected but something in the system may be blocking the switch commands.	• Check the cable path between the DISH Pro Twin and the receiver and remove any incompatible accessory devices*. Rerun check switch.
When you run Check Switch, you do not see "Twin" identified as a Device or LNBF, but odd transponders are detected only on one satellite.	• You may have DISH Pro Adapter installed on a DISH Pro receiver. • May have a non-DISH Pro switch or LNBF in the system	• Remove the DISH Pro Adapter; this device is only for non-DISH Pro receivers. Rerun check switch. • Remove any non-DISH Pro switches/ LNBs from the system. All LNBs and switches must be DISH Pro. Rerun check switch.

What's Happening	What's Wrong	What You Can Do
When you run Check Switch, you see "Twin" identified as the Device/LNBF but you only have signal confirmed from one satellite.	• The DISH Pro Twin LNBF is connected but the dish may not be pointed to receive signal from both 110 and 119 satellites.	• If the check switch summary screen shows "119 W" on Dish Input 2, you need to point you dish 9 degrees to the east and repeak your dish. Rerun check switch. • If the check switch summary screen shows "110 W" on Dish Input 1, you need to point you dish 9 degrees to the west and repeak your dish. Rerun check switch. • Make sure skew setting is correct for a Dish 500 installation at your zip code. Rerun check switch.
When you run Check Switch, you see "Twin" identified as a Device or LNBF, but only odd transponders are detected.	• Cables may not be rated for 2150 MHz.	• Make sure cable is rated for 2150 MHz and all accessory devices are compatible. Rerun check switch.
Getting receiver messages that signal is lost or being acquired	• Check the weather conditions to see if heavy rain or snow could be temporarily block the signal. • Check for any obstructions in way of the dish like new growth on trees	• Wait for weather to clear up and restore signal. • Clear obstructions from the signal path.

* Compatible accessory devices must pass 2150 MHz signals, 22 KHz signals both directions (per DiSEqC 2.0 specifications), and pass DC power.

Using the Remote Control

What Is Happening	Possible Reason	What to Do
You cannot find the remote control.	• N/A	• Use the receiver front panel **Control Buttons** to control the receiver until you find the remote. If the remote control is permanently lost or too damaged to use, call the Service Center to order a replacement.
When you press a button on the remote control, the receiver does not do what you expect.	• The remote control may be missing batteries, the batteries may be incorrectly placed in the remote, or the batteries may be weak or dead. • You may be using the wrong remote control (1 or 2) for the menus (TV1 or TV2) you are trying to operate.	• If the batteries are missing or dead, insert fresh AAA-size batteries. If the remote has fresh batteries, check whether they are placed according to the label diagram. If not, remove them and place correctly. • Make sure you are using Remote Control 1 (2) to control TV1 (TV2) menus.
When you press the remote control **Power** button to turn the receiver ON, the receiver front panel **Power** light does not light up.	• Other lights are too bright. • Remote control not operating properly or the batteries are weak or dead. The receiver power cord not plugged into a power outlet, or there may be a problem with the power. • The remote control(s) may not be set to the address(es) used by the satellite receiver. • You may be using the wrong remote control (1 or 2) for the menus (TV1 or TV2) you are trying to operate.	• Try other remote control buttons to see if the receiver is responding. • Replace the remote batteries with fresh ones. • Check that the receiver power cord is not damaged, and that the plug is inserted correctly into the outlet. • Make sure the remote control(s) are set to the same address(es) used by the satellite receiver. See page 32 for information on changing the remote control address. • Make sure you are using Remote Control 1 (2) to control TV1 (TV2) menus.

What Is Happening	Possible Reason	What to Do
You use a pyramid type IR extender (not a "mouse tail"), and it does not seem to work.	• The IR sensor on the extender that receives the remote control signals may not be facing the remote control. The IR cable on the extender that sends the signal to the receiver may not be right in front of the IR sensor on the receiver front panel. • You are using Remote Control 2 which does not transmit IR signals.	• Make sure that the extender that receives the signal from the remote control is facing the right way, so that the IR sensor can receive the remote control signals. • Make sure that the IR cable on the extender that sends the signal to the receiver is right in front of the IR sensor on the receiver front panel, so that the receiver IR sensor can receive the signals. • If doing the above does not solve the problem, contact the manufacturer of the extenders for assistance. • Use a pyramid-type IR extender only with Remote Control 1 which uses IR signals.
Your UHF Pro remote control does not work well from far away.	• You may be experiencing interference or strong signals from objects near your receiver antenna.	• Make sure the UHF antenna is connected to the receiver and not touching anything else. • Vary the tilt angle of the receiver's UHF antenna. Locate the UHF antenna tip away from other electronics equipment or metal surfaces, even if separated by wooden shelving. • Move the receiver to different locations. For best results, place the receiver as high as possible, above all other equipment in your entertainment center. • Place the UHF antenna outside the entertainment center by using a coaxial cable to connect it to the receiver. • Move any nearby off-air antenna away from the UHF remote antenna. Do not place an off-air antenna on your receiver. • Use a 15dB attenuator provided in the installation kit. Connect the attenuator between the REMOTE ANTENNA connection and the antenna. It may help to use the attenuator with a coaxial cable extension, as well.

Hearing A Program

What Is Happening	Possible Reason	What to Do
The receiver front panel **TV1** and **TV2** lights are on and there is a good picture on the TV set, but you do not hear any sound.	• You may have muted the sound, or set the volume so low that you cannot hear it. • The audio connections may not be properly connected.	• Check the volume level on the TV or audio device. Turn off the mute or turn up the volume, as required. • Check the audio connectors and cables from the receiver to the TV or the sound system. • Check the TV speakers or the sound system.
You hear a foreign language with a program.	• You may have set the receiver to an alternate audio language.	• Use the **Alternate Audio Language** menu to select the language that you prefer.

Using the Menus

What Is Happening	Possible Reason	What to Do
You were using a menu, and it suddenly closed.	• The receiver has a time-out feature that closes any menu after several minutes of no activity. This will discard any changes you have made, but otherwise does no harm to the receiver.	• Start over again.
You cannot access DISH Home or Customer Support.	• Someone is using DISH Home or Customer Support on the other TV (nearby or remote). You can only access DISH Home and Customer Support on one TV (nearby or remote) at a time. • You do not have the receiver connected to an active phone line.	• Exit from DISH Home or Customer Support on the other TV (nearby or remote). • Make sure the receiver is connected to an active phone line.

Using Locks

What Is Happening	Possible Reason	What to Do
You set a lock (*for example*, a lock on programs by ratings), but the lock does not take effect.	• You may not have locked the receiver.	• You *must* lock the receiver to apply any lock that you have set.
You forgot the password, so that you are unable to unlock the receiver.	• You may not have written down the password, to keep it in a safe place.	• Call the Customer Service Center. You *must* provide account information to the Customer Service Representative. If you have set up a PIN, you will need to provide that, as well.

Watching A Program

What Is Happening	Possible Reason	What to Do
The receiver front panel **TV1** and **TV2** lights are on, but the TV image: is black (no picture), is frozen, has break-ups, has "snow," or shows small squares of various colors.	• The TV set may not be working properly. • If the TV and the receiver are working properly, there may be interference with the satellite signal. The TV may be wired to the wrong input. • The TV may not be on the correct channel. • The TV may not be set to display from the correct input.	• Make sure that the TV set is plugged into an electrical outlet. Make sure the outlet has electrical power. • Make sure that the TV is turned on. • If the receiver is connected to the TV using only the CH 3-4 connections, make sure that the TV is tuned to channel 3 or 4 (whichever works best in your area) and that the receiver is set to the same channel as the TV using the **Modulator Setup** screen. • If the TV is receiving the signal through the in-home cabling system from the CH 21-69 output on the receiver, make sure the TV is tuned to the same channel as indicated in the receiver **Modulator Setup** screen. • Make sure that the TV brightness and contrast are adjusted correctly. • Make sure that the TV is connected properly to the receiver. Make sure that the TV's text mode and closed captioned features are turned off. • If the TV is connected to the receiver using the RCA-type or S-Video connections, make sure the TV is set up to display from the connected outputs. • Check that the system has been installed correctly. Make sure that all required coaxial cables are in place, and check that all cable connectors are tight and dry (for outdoor cables). Make sure that the satellite dish has a clear line of sight to the satellite. Check whether branches or leaves have grown into the line of sight. • Make sure that the satellite dish is aimed at the satellite. Check the strength of the signal using the **Point Dish and Signal Strength** menu. Consult your installer to re-aim the dish, if necessary, to obtain the maximum possible signal strength. Note the local weather conditions. Heavy rain, snow, or cloud cover may be interfering with transmission of the satellite signal. Remove any snow or other debris which may have collected on the satellite dish.
The receiver front panel **Power** light is on, and there is a picture on the TV screen, but the picture: has sparkles or is grainy, has a herringbone pattern, lacks color or vertical hold, or wobbles, or looks "washed out" or fuzzy.	• The TV set may not be working properly. If the receiver is connected to the TV using only the RF or VHF connections, there may be a strong local broadcast on the same channel, or a channel adjacent to the one to which the TV is tuned. There may be interference from other nearby electrical devices (such as cellular telephones, computers, microwave ovens, radios, stereos, or TVs).	• Make sure that the TV brightness and contrast are adjusted correctly, and that the TV is working properly. Make sure that the TV is connected properly to the receiver. Check other nearby electrical devices as possible sources of interference. Check that all required coaxial cables are in place. Check for moisture or water leaking into all connections. Dry them out if needed, then seal them with coaxial cable sealant. Check the dish-to-receiver cable run length; if it is over 100 feet, call your dealer or installer.
A "black box" fills almost all of the TV screen.	• You may have turned on the Closed Captioned feature on the TV, and put that feature into Text mode.	• Using the TV remote control and/or menus displayed by the TV (*not* the receiver remote control or the menus displayed by the receiver), turn off the closed captioned feature.
The TV screen is displaying a DISH Network logo.	• Your TV1 or TV2 outputs are not on.	• Press the SELECT or blank POWER button on the remote control.
The TV screen is all blue.	• You may have connected the receiver to an input on the TV that is incorrect for the signal output from the receiver.	• Check your TV owner's manual for the correct TV input to use for the signal output from the receiver.

Using the Program Guide or the Browse Banner

What Is Happening	Possible Reason	What to Do
In the **Program Guide**, some channels have a red background.	• Red means that you have not bought the program. You *must* buy a channel before you can tune the receiver to it.	• If you want to buy a channel, call the Customer Service Center at 1-800-333-DISH (3474).
You try to display future programs in the **Program Guide** or **Browse Banner**, but find you cannot.	• The **Program Guide** and **Browse Banner** can display programs scheduled for an extended, but not unlimited time beyond the present.	• Try displaying the **Program Guide** again later. By that time, it may show programs for the time and date you want. • Turn the receiver off for about ten minutes. This will allow the Program Guide to be updated.
You try to display programs that have ended in the **Program Guide** or **Browse Banner**, but find you cannot.	• The **Program Guide** and **Browse Banner** can display *only* programs that have not yet ended. These features *cannot* display a time earlier than the present.	• Contact the program providers for details on past programs.
When you are using the **Program Guide** or **Browse Banner**, some channels are missing.	• You may have applied a Favorite List other than the list named **All Chan**. • You may have set up the locks to hide certain programming. • If your setup includes a multi-dish switch, you may need to do the **Check Switch** procedure.	• You can change the applied Favorite List while using the **Program Guide**, by pressing the remote control **Guide** button repeatedly. You can choose another custom Favorite List, the **All Chan** list, which includes all of the channels, or the **All Sub** list, which includes all subscribed channels. • Unlock the receiver for the **Program Guide** to display hidden channels. • Do the **Check Switch** procedure (see the installation instructions for details).

Changing Channels

What Is Happening	Possible Reason	What to Do
You enter a desired channel number. The channel changes, but the new channel is not exactly the channel you entered.	• You may have made a mistake entering the channel number, or the channel number you entered may be invalid. If so, the channel displayed is the closest possible to the channel you entered. If you entered the number for a channel that you have not bought, the receiver will change to the channel and allow you to buy the channel or display a message.	• Carefully retry entering the channel number you want. Press the remote control RECALL button to return to the previous channel number.
You are scanning up or down through the channels, and the receiver is skipping channels that you know you have bought.	• If a Favorite List other than **All Chan** is applied, the receiver will skip channels that are not on the applied list. • If you have set up the locks to hide adult channels and the receiver is locked, the receiver will skip such channels.	• Select **All Chan** as the active Favorite List by pressing the GUIDE button repeatedly. Unlock the receiver so that it does not skip adult channels. • If you want to buy a channel, call the Customer Service Center.

Reference

Using Favorites Lists

What Is Happening	Possible Reason	What to Do
You press the remote **Guide** button while the **Program Guide** is displayed. You find that you can apply *only* the **All Chan** list or the **All Sub** list.	• If you have not added channels to any custom Favorite List, you will be able to apply *only* the **All Chan** list or the **All Sub** list.	• You *must* add channels to a custom Favorite List *before* you can apply it.
You try to change the **All Chan** list or the **All Sub** list. The receiver displays an **ERROR** message.	• The receiver will *not* allow you to change the **All Chan** list or the **All Sub** list.	• Choose another list to change. **Note:** You *can* only change the **All Sub** list by changing what channels you buy.
You try to apply an empty Favorite List. The receiver displays an **ERROR** message.	• The receiver will not allow you to apply an empty list.	• Choose another list to apply, or add at least one channel to the empty list.
A Favorite List does not show channels that you know you have added to it.	• If you have set up the locks to hide adult channels and the receiver is locked, the Favorite List will not show such channels.	• Unlock the receiver for the list to show adult channels.

Buying a Pay Per View Program

What Is Happening	Possible Reason	What to Do
Someone orders a pay per view program without your permission.	• You may have been away from the receiver, and someone else used it.	• Lock the purchase of pay per view programs. *Remember that you are responsible for all pay per view purchases, whether or not you authorize such purchases*. If you lock pay per view purchases, then anyone who wants to order a pay per view program *must* enter the password.
You find that you are not able to order a pay per view program.	• The receiver may not be connected to an active telephone line. • The credit limit may have been exceeded.	• You *must* connect the receiver to an active telephone connection at all times. If you install two or more receivers, you *must* connect *each* receiver to an active telephone connection at *all* times. • Review your pay per view purchases to check the credit limit.
You find that you are not able to cancel a pay per view program.	• You ordered a pay per view program, and then decided not to watch it.	• You *cannot* cancel an order for a pay per view program, whether it was just ordered or ordered earlier.
Your setup includes more than one receiver. You order a pay per view program, but it does not appear via all of the receivers.	• You ordered a pay per view program, and want it to be available via all the receivers in your setup.	• If you want to watch a pay per view program on TVs connected to up to six receivers, you must *order* the program for *each* receiver but you only *pay* for the program *once*.

Using the Telephone for Voice/Data/FAX

What Is Happening	Possible Reason	What to Do
While you are making a telephone call, you hear "clicks."	• The receiver may have tried to call the Customer Service Center to send pay per view purchase information. When the receiver found that the telephone was busy, it automatically disconnected.	• You do not have to do anything. You can always use your telephone line, because the receiver automatically hangs up if it finds the line is busy.
The receiver cannot connect to DISH Network.	• Maybe the receiver is connected to a DSL (Digital Subscriber Line) phone line.	• Install a DSL filter between the receiver and the telephone wall jack.
You pick up the telephone to make a call, but you do not hear a dial tone.	• The receiver was calling the Customer Service Center to send pay per view information. When the receiver found that the telephone was busy, it automatically disconnected.	• Hang up, and then pick up the telephone again to get a dial tone.
Your computer or facsimile (FAX) machine tries to send a FAX or modem transmission, but fails.	• The receiver was calling the Customer Service Center to send pay per view information. When the receiver found that the telephone was busy, it automatically disconnected. The FAX or modem found that there was no dial tone, and cancelled the transmission.	• Resend the FAX or modem transmission.
Your computer or FAX machine was receiving a FAX or modem transmission, but an error occurred.	• The receiver may have tried to call the Customer Service Center to send pay per view purchase information during the FAX or mode call. When the receiver found that the telephone was busy, it automatically disconnected. This generated "clicks" that caused an error in the FAX or modem transmission.	• Have the sender resend the FAX or modem transmission.

Using Event Timers

What Is Happening	Possible Reason	What to Do
You try to set up an event timer and the receiver displays a message noting that the program is locked.	• You *must* enter the password *before* you can create an event timer for a locked program.	• To be able to set up an event timer for the program, first enter the password.
You try to set up an event timer and the receiver displays a message noting that the program is a pay per view event.	• You *must* order a pay per view event *before* you can create an event timer for it.	• To be able to set up an event timer for the event, first order it.
You try to set up an event timer, but the receiver displays an **Error** message giving you the option to delete an event timer that was set up earlier.	• You already have set up the maximum number of event timers.	• To be able to set up a new event timer, delete one of the event timers you set up earlier.
You set up an event timer, but the receiver does not tune to the channel of the program, or does not record the program.	• You may have set up a *Reminder Event Timer* but what you should have set up is an *Auto-Tune Event Timer*, or a *VCR Event Timer*.	• Remember that a *Reminder Event Timer* just reminds you that the program is about to start. An *Auto-Tune Event Timer* reminds you and tunes the receiver to the channel of the program. A *VCR Event Timer* reminds you, tunes the receiver, and starts the VCR.
You set up an event timer for a program that is repeated (such as a regularly scheduled program), but the timer does not operate for a showing of the program.	• You may have set up a timer with an incorrect frequency.	• Remember that a *Once* event timer operates just one time. A *Mon.-Fri.* event timer operates Monday through Friday on the same channel at the same time. A *Daily* event timer does the same, Monday through Sunday. A *Weekly* event timer operates once a week on the same channel at the same time.

Reference

What Is Happening	Possible Reason	What to Do
You set up an event timer, but the timer does not operate at all.	• The program time may have changed so that the event timer overlapped another event timer. The program time may have changed by more than twenty-four hours.	• If the receiver is ON and finds an event timer overlap, it will display the **Event Timer Scheduling Conflict** menu. You *must* edit or delete one of the overlapping event timers. No event timer will operate if the program time changes by more than twenty-four hours.
You set up a *Once* event timer, but the timer operates at a time different from what you expect.	• The program time changed.	• A *Once* event timer always operates at the actual time of the program.
You stop the operation of an event timer for one showing of a program that is repeated (such as a regularly scheduled program), but the timer operates for the next showing.	• Stopping the event timer applies *only* to the current showing of the program.	• To stop all operations of a repeated event timer, you *must* delete the event timer. **Note:** The receiver deletes a *Once* event timer when it operates.
You are testing a VCR code to see if the receiver controls a VCR. The VCR does not do the test.	• The VCR may not be turned ON, there may not be a tape inserted, the tape may not be rewound, or the write-protect tab on the tape may have been removed. The code you are testing may not be valid for the VCR.	• Make sure the VCR is turned ON, with a blank tape inserted on which you want to record, that the tape is rewound, and that the write-protect tab on the tape is intact. Try another VCR code from the **VCR Codes** table.

Device Codes

These tables contain the manufacturer codes for programming the remote to control your TV, a VCR, DVD player, or audio amplifier. Every attempt has been made to include all codes. If your device brand is not listed or if the codes do not work, the remote may not control your device. In some cases, codes may operate some but not all buttons shown in this guide.

TV Codes

Programming in AUX mode: Press 0 before entering the TV code.

TV	Codes
A Mark	670
Action	662
Admiral	514, 521, 605, 668, 669, 675
Aiko	727
Aiwa	751
Akai	570, 573, 659, 660,
A-Mark	620
Amtron	657
Anam National	509, 541, 620, 651, 657, 661, 663, 698
AOC	505, 506, 519, 520, 573, 620, 627, 652, 653, 654, 659, 664, 665, 670, 672
Apex	743, 744, 745
Archer	620
Audiovox	620, 657, 662, 672
Bell & Howell	590, 669, 675
Broksonic	752, 659, 661, 748
Capehart	519, 627
Citizen	506, 516, 523, 524, 525, 526, 590, 652, 654, 657, 658, 680, 727
Classic	659
Colortyme	573, 627, 652, 654, 660, 667, 668, 671, 674, 679, 681
Contec/Cony	541, 655, 657, 661, 662, 726
Craig	536, 541, 657, 661, 662, 666, 667, 694
Crown	526, 536, 657, 666, 670
Curtis Mathes	506, 516, 526, 573, 590, 641, 645, 650, 652, 654, 658, 659, 660, 664, 665, 667, 668, 670, 674, 680, 703, 708
Daewoo	505, 524, 526, 529, 530, 531, 573, 652, 653, 654, 658, 659, 663, 664, 665, 670, 672, 674, 684, 698, 719, 727
Daytron	526, 627, 652, 654, 658, 665, 670, 672
Dimensia	645, 650
DISH Network	742
Dixi	566, 620
Dumont	501, 627, 652
Echostar	722
Electrohome	526, 573, 651, 652, 654, 656, 659, 660, 665, 670, 709, 728
Emerson	526, 534, 535, 536, 537, 538, 539, 541, 573, 590, 627, 636, 642, 648, 652, 654, 655, 657, 658, 659, 660, 661, 662, 665, 666, 667, 669, 670, 677, 679, 682, 692, 696, 699, 720
Envision	506, 573, 652, 654, 660, 664
Fisher	542, 590, 683
Fujitsu	534, 682, 694
Funai	534, 541, 657, 661, 662, 677, 682, 694
GE	508, 509, 543, 544, 630, 645, 646, 650, 651, 652, 654, 659, 661, 663, 665, 667, 668, 670, 673, 676, 681, 690, 691, 698, 701, 715, 716, 725, 728, 742
Goldstar	505, 523, 526, 545, 546, 566, 573, 652, 653, 654, 655, 656, 658, 659, 660, 664, 665, 670, 671, 678, 693, 730, 747
Gradiente	660, 671
Granada	627, 670, 671
Grundig	670, 673
Hallmark	627, 652, 654, 659
Harmon/Kardon	561, 659
Hinari	534
Hitachi	523, 526, 548, 549, 553, 554, 555, 585, 597, 626, 636, 638, 643, 648, 652, 654, 655, 665, 668, 669, 670, 672, 673, 702, 718, 726
Infinity	566, 671
JBL	566, 671
JC Penney	505, 506, 516, 525, 526, 543, 546, 631, 645, 646, 650, 652, 653, 654, 658, 659, 664, 667, 668, 670, 673, 676, 678, 680, 690, 691, 701, 725, 726, 728, 730
Jensen	556, 573, 652, 654, 660
JVC	508, 557, 559, 642, 649, 655, 667, 673, 676, 726, 735, 736, 737
Kawasho	548, 561, 573, 652, 654, 664
Kenwood	506, 573, 652, 654, 656, 659, 660, 664, 679, 681
Kloss Novabeam	657, 663, 698, 723, 724
Konka	753
KTV	526, 539, 541, 573, 657, 658, 661, 662, 664, 665, 670, 696
Lloyds	627, 679
Loewe	566
Logik	675
Luxman	523, 652, 654
LXI	563, 566, 590, 595, 667, 631, 635, 645, 646, 650, 654, 659, 668, 678, 683, 691, 701, 725
Magnasonic	573, 659, 660, 669, 672, 677
Magnavox	506, 520, 525, 536, 566, 567, 568, 573, 610, 652, 654, 656, 659, 660, 664, 665, 666, 669, 671, 673, 674, 677, 723, 724, 729
Majestic	675
Marantz	506, 566, 573, 652, 654, 660, 664, 665, 671, 678, 681
Megatron	627, 654

TV	Codes
Memorex	590, 627, 653, 654, 659, 675, 678, 720
MGA	504, 505, 506, 542, 571, 573, 627, 652, 653, 654, 656, 660, 728
Mitsubishi	504, 505, 542, 570, 571, 572, 573, 597, 623, 627, 652, 653, 654, 656, 659, 660, 664, 665, 670, 671, 705, 728
Montgomery Ward	675
Motorola	521, 605, 651
MTC	505, 506, 516, 523, 573, 627, 652, 653, 654, 659, 664, 667, 672, 680
Multitech	657
NAD	502, 617, 627, 631, 635, 637, 654
National	509
NEC	505, 506, 507, 517, 523, 573, 627, 651, 652, 653, 654, 660, 664, 665, 679, 681, 731, 732
Nikkai	612
Nikko	654, 672, 727
Onwa	541, 657, 661
Optimus	637
Optonica	521, 605, 607
Orion	694
Osaki	612
Panasonic	508, 509, 510, 512, 566, 644, 651, 662, 663, 668, 672, 673, 676, 685, 689, 698, 700, 716, 234, 247
Philco	505, 506, 525, 536, 568, 573, 610, 651, 652, 653, 654, 655, 656, 659, 660, 664, 665, 666, 669, 671, 672, 674, 677, 723, 724, 729
Philips	525, 566, 651, 652, 655, 656, 671, 690, 723, 724, 729
Pioneer	502, 548, 576, 636, 637, 648, 652, 654, 663, 665, 681, 708
Portland	505, 526, 573, 652, 654, 658, 659, 664, 665, 670, 727
Price Club	680
Prism	676
Proscan	645, 646, 650, 668, 691, 725, 742
Proton	513, 519, 526, 536, 585, 627, 652, 654, 655, 659, 660, 665, 666, 668, 670, 678

TV	Codes
Quasar	508, 509, 651, 663, 673, 676, 698, 700, 747
Radio Shack/Realistic	526, 541, 590, 607, 612, 645, 650, 652, 654, 655, 657, 658, 661, 662, 663, 668, 670, 683, 698, 730
RCA	503, 505, 548, 586, 630, 633, 634, 636, 641, 645, 646, 648, 650, 651, 652, 653, 654, 656, 661, 663, 665, 667, 668, 670, 681, 691, 698, 701, 708, 715, 716, 725, 742, 749
Realistic	590, 645
Runco	501
Sampo	506, 519, 652, 654, 658, 663, 664, 665, 698, 730, 746
Samsung	505, 506, 516, 523, 526, 566, 573, 612, 627, 647, 652, 653, 654, 655, 656, 658, 659, 664, 665, 667, 669, 670, 679, 680, 704, 717, 730, 738
Sansui	754
Sanyo	542, 590, 652, 683
SBR	566
Schneider	566
Scott	526, 534, 537, 541, 600, 652, 654, 655, 657, 661, 662, 665, 670, 677, 682, 696, 701
Sears	523, 534, 542, 563, 590, 595, 601, 604, 617, 627, 631, 635, 645, 646, 650, 652, 654, 656, 659, 661, 668, 670, 682, 683, 688, 691, 703, 725, 726
Sharp	521, 526, 585, 605, 607, 628, 629, 652, 654, 655, 658, 669, 670, 674, 679, 739, 740, 741
Signature	675
Solavox	612
Sony	500, 578, 640, 670, 690
Soundesign	525, 536, 541, 627, 652, 654, 657, 659, 661, 665, 666, 682
Starlite	657
Supra	523
Sylvania	506, 525, 536, 566, 568, 569, 573, 600, 610, 652, 654, 656, 659, 660, 664, 665, 666, 671, 672, 674, 677, 723, 724, 729, 733
Symphonic	632, 657, 662, 677, 692, 694

TV	Codes
Tandy	521, 605
Tatung	509, 651, 663, 698
Technics	508, 673, 676
Techwood	523, 573, 652, 654, 660, 676
Teknika	504, 505, 512, 516, 523, 524, 525, 526, 534, 536, 541, 573, 644, 652, 653, 654, 655, 657, 658, 661, 662, 664, 665, 666, 670, 672, 675, 680, 681, 682, 685, 726, 727
Telefunken	679
Toshiba	516, 590, 617, 631, 635, 667, 678, 680, 683, 688, 750
Totevision	526, 658, 668
Ultra	672
Universal	543, 690
Vector, Research	506
Video Concepts	570, 661
Wards	536, 573, 607, 645, 650, 652, 653, 654, 656, 659, 664, 665, 666, 667, 668, 669, 674, 675, 677, 678, 682, 690, 715, 723, 724, 729
White, Westinghouse	659, 664, 670, 672, 674
Yamaha	505, 506, 573, 652, 653, 654, 656, 664, 666, 672, 679

VCR Codes

Programming in AUX mode: Press 1 before entering the VCR code.

VCR	CODES
Aiwa	588, 622, 623
Akai	513, 514, 515, 516, 517, 518, 520, 568, 682
Alba	546
Amstrad	588
ASA	556
Audiovox	676
Bell & Howell	581
Broksonic	559, 748
Bush	589
Calix	676
Canon	554, 678, 679
Capehart	546
CCE	681

VCR	CODES
Citizen	534, 591, 592, 594, 675, 676, 677, 684
Colortyme	592,
Craig	591, 658, 675, 676, 681, 685, 687, 688
Curtis Mathes	554, 592, 594, 605, 607, 675, 677, 678, 679, 683, 684
Daewoo	506, 534, 546, 547, 559, 588, 684
Daytron	546
Denon	686
Dimensia	607
Dumont	549
Electrohome	512, 676, 687
Emerson	505, 506, 508, 509, 511, 512, 534, 559, 568, 588, 590, 618, 676, 678, 684, 687
Finlandia	549
Finlux	549, 556, 588
Fisher	548, 549, 581, 584, 588, 608, 610, 684, 688
Fuji	678
Funai	588
Garrard	588
GE	550, 551, 552, 554, 572, 591, 605, 607, 675, 678, 679
Go Video	557, 558, 620, 685
Goldstar	592, 594, 676, 687, 747
Goodmans	585, 589
Gradiente	588, 687
Granada	549, 581
Grundig	556
Harmon/Kardon	568, 592
Harwood	681
Hinari	589
Hitachi	536, 538, 539, 540, 588, 595, 597, 680, 682, 686
ITT	518
JC Penney	554, 581, 591, 592, 594, 595, 600, 674, 675, 676, 678, 679, 680, 681, 685, 686, 687
Jensen	595, 680, 682
JVC	561, 562, 563, 581, 592, 594, 600, 674, 682, 686
Kenwood	562, 581, 592, 594, 600, 674, 677, 682, 683
KLH	681
Kodak	676, 678
Lloyds	683, 688
Logik	589, 681, 685

VCR	CODES
Luxor	518
LXI	676
Magnasonic	685, 687
Magnavox	527, 533, 554, 556, 678, 679, 684, 685
Marantz	554, 556, 581, 585, 592, 594, 600, 602, 674, 677, 678, 683
Matsushita	678
Memorex	507, 533, 549, 554, 566, 581, 585, 588, 608, 675, 676, 678, 686, 687, 688
MGA	512, 567, 568
Minolta	595, 680, 686
Mitsubishi	512, 562, 567, 568, 570, 571, 595, 680, 687
Motorola	678
MTC	544, 588, 675, 685
Multitech	579, 588, 675, 677, 681
NAD	573
NEC	562, 581, 592, 594, 600, 602, 674, 677, 682, 683
Nikko	676
Noblex	675
Olympus	678
Optimus	676, 687
Optonica	585
Orion	506, 684, 687
Panasonic	523, 554, 598, 614, 628, 633, 678, 679, 684, 685, 688, 747
Pentax	592, 595, 677, 680, 683, 686
Pentex Research	594
Perdio	588
Philco	554, 678, 679, 686
Philips	554, 556, 585, 678, 684
Pioneer	562, 573, 574, 575, 576, 600, 674, 680,
Portland	546, 677
Proscan	605, 607,
Proton	685
Quasar	554, 678, 679, 747,
Radio Shack	512, 607, 608, 610, 687
Radio Shack/Realistic	581, 584, 588, 608, 675, 676, 678, 679
Radix	676
RCA	518, 525, 527, 528, 591, 595, 605, 607, 615, 631, 649, 675, 678, 680, 686
Realistic	534, 549, 554, 581, 584, 585, 588, 608, 675, 678, 679, 687, 688

VCR	CODES
Ricoh	502
Runco	533
Saisho	506
Salora	567, 581
Samsung	515, 517, 534, 579, 591, 675
Sansui	544, 562, 600, 674, 682, 685
Sanyo	549, 581, 582, 583, 608, 675, 688
SBR	556
Schneider	589
Scott	508, 534, 559, 590, 684, 687
Sears	548, 549, 581, 584, 595, 608, 610, 676, 678, 680, 683, 684, 686, 687, 688
Sentra	546
Sharp	512, 585, 607, 625
Shintom	589, 595, 681, 685
Singer	678, 681, 685
Sony	500, 501, 502, 504
STS	678
Sylvania	554, 556, 567, 588, 678, 679
Symphonic	588, 594, 683, 688
Tandy	581, 588
Tashiko	588, 676
Tatung	594, 682,
Teac	588, 594, 682
Technics	554, 633, 678,
Teknika	554, 588, 676, 678, 687
Toshiba	534, 535, 567, 584, 590, 680, 684, 688
Totevision	591, 675, 676, 687
Unitech	675,
Vector Research	534, 592, 600, 674, 677, 683
Video Concepts	534, 568, 592, 600, 674, 677, 683,
Wards	534, 588, 595, 608, 675, 676, 678, 680, 681, 684, 687, 688
XR-1000	588, 678, 681
Yamaha	581, 592, 594, 600, 674, 682, 683
Zenith	500, 501, 533, 747

TV/VCR Combo

Programming for combination devices: Program the remote control in TV mode and then in VCR mode.

TV/VCR	Codes
Broksonic	748
Goldstar	747
Panasonic	747
Quasar	747
Zenith	747

DVD Player Codes

Programming in AUX mode: Press 1 before entering the DVD code.

DVD Players	Codes
Aiwa	634, 694, 751
Alpine	653
Apex	654, 655, 743, 744
Broksonic	656, 752
Clarion,	696
Classic	695
Daewoo	657
Denon	697, 698, 699, 700
Emerson	658, 701
Fisher	659
Funai	658
GE	702, 703
Go Video	692, 693
GPX	704
Hitachi	632, 635, 660, 705, 706, 707
JVC	636, 689, 708, 711
Konka	637, 638, 753
Koss	745
Magnavox	626, 661
Memorex	709
Mintek	710
Mitsubishi	629
NAD	701
Norcent	762
Onkyo	713
Oritron	723
Panasonic	639, 662, 663, 714, 715, 716, 717, 734
Philips	640, 641
Pioneer	665, 718, 719
Proscan	720
Qwestar	721, 723
RCA	627, 650, 666, 690, 742, 749
Sampo	724
Samsung	651, 652, 667, 668, 691, 740, 741
Sansui	725, 754
Sanyo	643, 726
Sharp	669, 727, 746
Sherwood	728
Sony	617, 644, 645, 670, 671, 729, 730, 731
Sylvania	658
Teac	732
Technics	733
Techwood	664
Toshiba	616, 646, 647, 672, 735, 736, 750,
Yamaha	737, 738, 739
Zenith	648, 673

Tuner/Amplifier Codes

Programming in AUX mode: Press 2 before entering the tuner/amplifier code.

Tuner/Amplifier	Codes
Aiwa	636, 641, 656, 687, 718, 720, 724, 775, 726
Carver	653
Citizen	709
Curtis Mathes	734
Denon	647, 674
Fisher	653, 741
GE	711
Goldstar	677, 690
Harmon/Kardon	640, 672, 751
Hitachi	717, 754
JBL	640
JVC	637, 683, 703, 725
Kenwood	649, 676, 691, 726, 728, 745
Luxman	752
Magnavox	654, 705, 740
Marantz	651, 740, 742, 743
NAD	739
Nakamichi	671, 748, 750
NEC	716, 739
Onkyo	642, 660, 662, 678
Optimus	648, 664, 734, 744, 749
Panasonic	643, 644, 652, 742, 746
Pioneer	658, 667, 668, 679, 702, 734
Proton	654, 705
Quasar	652, 742, 746
Radio Shack	744
RCA	635, 638, 704, 727
Sansui	753
Sanyo	741
Sharp	712, 713, 714, 715, 749
Sherwood	646, 670, 736, 738, 744
Sony	639, 645, 650, 687, 728, 729, 730
Teac	684, 737

Tuner/Amplifier	Codes
Technics	643, 644, 652, 742, 746
Toshiba	710
Yamaha	663, 730, 731, 732, 733, 745, 747

DVD/VCR Combo

DVD/VCR	Codes
Go Video	692,693
JVC	689
RCA	690
Samsung	667,691

TV/DVD Combo Codes

Programming for combination devices: Program the remote control in TV mode and then in VCR (or AUX - press 1 before entering the DVD code) mode.

TV/DVD	Codes
Aiwa	751
Broksonic	752
Konka	753
Panasonic	734
RCA	749
Sansui	754
Toshiba	750

Notes

Appendix

Limited Warranty

This Limited Warranty is a legal document. Keep it in a safe place. Remember to retain your Bill of Sale for warranty service! Any items returned without a copy of the Proof of Purchase will be considered out of warranty.

What the Warranty Covers

This warranty extends only to the original user of the equipment and is limited to the purchase price of each part. EchoStar Technologies Corporation and its affiliated companies ("EchoStar") warrant this system against defects in materials or workmanship as follows:

- **Labor**: For a period of one (1) year from the original date of purchase, if EchoStar determines that the equipment is defective subject to the limitations of this warranty, it will be replaced at no charge for labor. EchoStar warrants any such work done against defects in materials or workmanship for the remaining portion of the original warranty period.
- Parts: For a period of one (1) year from the original date of purchase, EchoStar will supply, at no charge, new or re-manufactured parts in exchange for parts determined to be defective subject to the limitations of this warranty. EchoStar warrants any such replacement parts against defects in materials or workmanship for the remaining part of the original warranty period.

  Note: "Parts" means items included in this package, which may include the satellite dish assembly, receiver, LNBF, remote control, or dish mounting hardware. It does not include other parts purchased separately.

What the Warranty Does Not Cover

- This warranty does not cover installation of the system. If applicable, such installation will be warranted under a separate installation agreement.
- This warranty does not cover consumer instruction, physical setup or adjustment of any consumer electronic devices, remote control batteries, signal reception problems, loss of use of the system, or unused programming charges due to system malfunction.
- This warranty does not cover cosmetic damage, damage due to lightning, electrical or telephone line surges, battery leakage, fire, flood, or other acts of Nature, accident, misuse, abuse, repair or alteration by other than authorized factory service, use of accessories not recommended by the receiver manufacturer, negligence, commercial or institutional use, or improper or neglected maintenance.
- This warranty does not cover equipment sold AS IS or WITH ALL FAULTS, shipping and handling, removal or reinstallation, shipping damage if the equipment was not packed and shipped in the manner prescribed, nor equipment purchased, serviced, or operated outside the continental United States of America.

Legal Limitations

REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS YOUR EXCLUSIVE REMEDY. ECHOSTAR SHALL NOT BE HELD LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR BREACH OF ANY EXPRESSED OR IMPLIED WARRANTY ON THIS SYSTEM, NOR FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF, OR INABILITY TO USE, THIS SYSTEM. UNDER NO CIRCUMSTANCES SHALL ECHOSTAR'S LIABILITY, IF ANY, EXCEED THE PURCHASE PRICE PAID FOR THIS SYSTEM. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ON THIS SYSTEM IS LIMITED IN DURATION TO THE PERIOD OF THIS WARRANTY. ECHOSTAR RESERVES THE RIGHT TO REFUSE TO HONOR THIS WARRANTY IF ECHOSTAR DETERMINES ANY OF THE ABOVE EXCEPTIONS TO HAVE CAUSED THIS SYSTEM NOT TO HAVE PERFORMED PROPERLY. THIS WARRANTY SHALL BE VOID IF ANY FACTORY-APPLIED IDENTIFICATION MARK, INCLUDING BUT NOT LIMITED TO SERIAL OR CONDITIONAL ACCESS NUMBERS, HAS BEEN ALTERED OR REMOVED. THIS WARRANTY SHALL ALSO BE VOID IF THE RECEIVER HAS BEEN OPENED BY AN UNAUTHORIZED PERSON.

If You Need Assistance

1. Call the Customer Service Center at 1-800-333-DISH (3474). Have the date of purchase and either your customer account number, the receiver conditional access number, or the receiver model number ready. Display the Important System Information menu to find these numbers.
2. A Customer Service Representative will assist you.
3. If the Representative determines you should return any equipment, you will be directed to call a Return Authorization representative. Before shipping any equipment, you must talk to a Return Authorization representative and must obtain a Return Authorization (RA) number.
4. You will be given the appropriate address for which to return your equipment. Whether under warranty or not, you will be responsible for the cost of shipping back the defective equipment. For faster service, see the Advance Exchange Program below.
5. Returned equipment must be packaged properly, using either the original shipping materials or the packaging in which the replacement equipment is shipped. Include a copy of the Bill of Sale. Any items returned without a copy of the Proof of Purchase will be considered out of warranty. Follow the instructions given to you by the Customer Service Representative.
6. Write the RA number in large, clearly visible characters on the outside of the shipping box that you use to return the equipment. To avoid confusion and misunderstandings, shipments without an RA number clearly visible on the outside of the box will be returned to you at your expense.

Advance Exchange Program

The Advance Exchange Program allows you to have replacement equipment shipped immediately to you (depending upon where you live, it could take three to five business days). Along with replacement equipment, you will receive a prepaid shipping label and instructions on how to return the defective equipment.

The shipping charge, for receiving replacement equipment and returning the defective equipment, is a one-time fee based on EchoStar's competitive bulk shipping rates (additional charges may apply outside of the continental US). This fee will be charged to your billing account or your valid credit card.

If you do not ship the defective equipment to EchoStar within ten days after receiving the replacement, your billing account or credit card will be charged the market price of the replacement. If you return the defective equipment after ten days, you will receive a full refund less an administrative fee.

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, billing account or credit card will be charged the market price of the replacement.

Post Receipt Exchange Program

You may choose to ship the equipment to us at your cost. To provide faster service, upon receipt of your equipment you will be shipped a replacement. Your original equipment will not be available for return.

The equipment you return will be checked to verify whether it is covered under this warranty. If the defective equipment is covered under this warranty, it will be replaced and shipped back to you at no additional cost (additional charges may apply outside of the continental US).

If your equipment is out of warranty and can be repaired your billing account or credit card will be charged the standard repair fee for the replacement. If damage to the defective equipment is found, which EchoStar in its sole discretion determines has voided the warranty, or makes the equipment unrepairable, your billing account or credit card will be charged the market price of the replacement.

Accessory Warranty

An accessory is any DISH Network branded equipment, displaying the DISH Network logo, excluding the receiver, cables and hookups, and non-mechanical components. A one-year warranty becomes effective upon the activation of the DISH system or date of purchase, if bought separately. A proof of purchase is required to verify the purchase date. If an accessory has an expired warranty, no exchange will be issued. You may purchase replacement accessories from DISH Network or your local retailer.

Residential Customer Agreement

THIS RESIDENTIAL CUSTOMER AGREEMENT IS EFFECTIVE UNTIL REPLACED. THIS DOCUMENT DESCRIBES THE TERMS AND CONDITIONS UNDER WHICH DISH NETWORK WILL PROVIDE ITS SERVICE TO YOU. IF YOU DO NOT ACCEPT THESE TERMS AND CONDITIONS, PLEASE NOTIFY US IMMEDIATELY AND WE WILL CANCEL YOUR SERVICE. IF YOU ARE A NEW DISH NETWORK CUSTOMER, YOUR ACTIVATION OF A DISH NETWORK ACCOUNT AND RECEIPT OF DISH NETWORK SERVICES SHALL CONSTITUTE YOUR ACCEPTANCE OF THIS AGREEMENT AND ITS TERMS AND CONDITIONS WILL BE LEGALLY BINDING UPON YOU.

IF YOU ARE AN EXISTING DISH NETWORK CUSTOMER, YOUR CONTINUED RECEIPT OF DISH NETWORK SERVICES FOLLOWING RECEIPT OR PUBLICATION BY DISH NETWORK ON ITS WEB SITE OF THIS AGREEMENT SHALL CONSTITUTE YOUR ACCEPTANCE OF ITS TERMS AND CONDITIONS, AND, ACCORDINGLY, THEY WILL BE LEGALLY BINDING ON YOU.

Thank you for choosing DISH Network for your television service provider.

DISH Network is happy to answer any questions you may have and to provide you with technical and other customer support through the following toll-free number and email address

1-800-333-DISH (3474)

feedback@echostar.com

or you may write to:

DISH Network

Customer Service Center

P.O. Box 33577

Northglenn, CO 80233

and, for general knowledge, try our website at **www.dishnetwork.com**.

"DISH Network" is a trademark of EchoStar Satellite L.L.C.

1. THE DISH NETWORK SERVICE

A. Services Defined. DISH Network offers a wide variety of video and audio programming and other services and we are constantly striving to add new services to our lineup. For purposes of this Agreement the term "Services" shall mean the programming available on DISH Network (whether subscription based or pay per view based) and any other services that we may provide to consumers either now or in the future. For purposes of this Agreement the terms "You" or "Your" refer to you, the DISH Network subscriber.

B. Programming Changes. Except as otherwise set forth in this Agreement, you may change your programming selection at any time by notifying us. A fee may apply to such changes (Change of Service Fee). In addition, you may be charged a fee (Service Access Fee) if you fail to subscribe to one of DISH Network's basic programming packages which include America's Top 60, America's Top 120, America's Top 180, DISH Latino or DISH Latino Max.

C. Programming Availability. Certain Services transmitted by us, including but not limited to some subscription Services, sporting events and broadcast network Services, may be blacked out in your area of reception. If you circumvent or attempt to circumvent any of these blackouts, you may be subject to legal action. You must be at least 18 years of age, or the applicable age of majority where you reside, in order to receive adult-oriented programming services.

D. Ordering Pay Per View. You may order DISH Network pay-per-view Services by using your on-screen Program Guide and remote control unit to select the movies and other events we offer. To order DISH Network pay-per-view Services, your DISH Network DBS digital receiver must be connected to a telephone outlet. You may also order DISH Network special events and pay-per-view Services over the telephone by calling the Customer Service Center or by using our automated system through the following toll-free number:

1-877-DISH-PPV (347-4778) for ordering movies

A fee will apply for use of the automated system (Pay-Per-View Automated Fee) or the Customer Service Center (Pay-Per-View Fee).

E. Private Viewing. DISH Network provides Services to you for your private home viewing, use and enjoyment. You agree that the Services provided will not be viewed outside of your private residence. You are permitted to exhibit the Services solely in your private residence and not in any other areas. The Services may not be rebroadcast, transmitted, recorded or performed, nor may admission be charged for listening to or viewing any Services provided by us. If we later determine that you utilized your DISH Network Equipment (including any additional DISH Network receivers) or sold, leased or otherwise gave possession of the same to a third party who you knew or reasonably should have known intended to use it to permit the viewing of the Services in a commercial establishment or any other area open to the public, we may terminate the Services and in addition to all other applicable fees, you agree to pay us the difference between the price actually paid for the Services and the full commercial rate for such Services, regardless of whether we have or had the commercial rights to distribute such Services in a commercial establishment. The payment of that amount and/or the termination of Services shall not prejudice our ability to exercise any other rights and remedies we may have under this Agreement, at law, in equity, or otherwise.

F. Additional Receivers. DISH Network will allow you to place up to five additional receivers on your account. Each additional receiver would be authorized to receive the same Services as your initial receiver. Unless your receiver is rented from DISH Network in which case a monthly rental fee will apply, DISH Network will charge you a monthly Additional Outlet Programming Access Fee for each additional receiver added to your account. This option is only available if your initial DISH Network receiver and all additional receiver(s) are located at the same residence and are continuously connected to the same telephone line. If you desire to receive Services at two different locations, you must open a separate account for each location. You agree that you will not directly or indirectly use a single account for the purpose of authorizing Services for multiple DISH Network receivers that are not all located in the same residence and connected to the same phone line. If we later determine that you did, we may terminate your Services and, in addition to all other applicable fees, you agree to pay us the difference between the amounts actually received by us and the full retail price for the Services authorized for each DISH Network

DBS receiver on the account, whether owned by you or not. The payment of that amount and/or the termination of Services shall be in addition to any other rights and remedies we may have under this Agreement, at law, in equity, or otherwise.

G. Changes in Services offered. DISH Network reserves the right to change the Services that we offer, and our prices or fees related to such Services at any time. If the change affects you, we will provide you notice of the change and its effective date. The notice may be provided on your billing statement or by other communication permitted under Section 9B. In the event of a change in the contents of any programming, programming packages or other Services, you understand and agree that we have no obligation to replace or supplement the programming, programming packages or other Services previously offered that have been deleted, rearranged or otherwise changed. You further understand and agree you will not be entitled to any refund because of a change in the contents of any programming, programming packages, or other Services previously offered.

H. Multi-Month Subscriptions. For multi-month subscriptions, you may downgrade the Services only at the time of renewal. You may not downgrade the Services during the term of the multi-month subscription.

I. Fees for Receivers that Independently Support Multiple Televisions. Additional fees may apply for a receiver which supports independent viewing of programming on multiple televisions.

2. BILLING POLICIES AND PAYMENTS FOR SERVICES

A. You agree to pay all amounts billed for Services and to pay all taxes, fees and other charges, if any, which are now or may in the future be assessed on the Services you receive from us. Unless you prepay for a multi-month subscription to Services, we will bill you each month, in advance, for Services ordered by you or anyone who uses your DISH Network Equipment, whether with or without your permission, until you cancel the Services. The bills you receive will show the total amount due, the payment due date, payments, credits, purchases and other charges to your account.

B. You agree to pay us in full monthly by the payment due date for the Services and for any other charges due us, including any fees set forth in this Section 2. Payment of your bill after the due date will result in you paying us a Late Payment Fee. Other fees and charges may also be assessed. If partial payments are made, they will be applied first to the oldest outstanding bill. If you send checks or money orders marked "payment in full," we can accept them without losing any of our rights to collect any other amounts owed by you, notwithstanding your characterization of the payment. DISH Network does not extend credit to our customers, and the Late Payment Fee is not interest, a credit service charge or a finance charge. You understand and agree that in the case of late payment or nonpayment for any Services ordered by you or for any of the charges stated below, we may report such late payment or nonpayment to credit reporting agencies. If you do not pay your bill by the due date, we have the right to disconnect your Services at any time thereafter, in our sole discretion. DISH Network may require you to pay all past due charges, a Reconnect Fee, a deposit equal to a minimum of one month's advance charges and all outstanding balances accrued through the date of deactivation, before we reconnect your Services. Deposits will not be held segregated from other funds and shall not earn or accrue interest.

C. If you at any time fail, neglect, or refuse to make timely payments hereunder, or if a petition in bankruptcy shall be filed on your behalf or against you, or if you take advantage of any insolvency law or become insolvent or make an assignment for the benefit of creditors, or if a receiver, liquidator, or trustee is appointed for your property or affairs, we shall be wholly relieved from our obligations hereunder.

D. If you paid for an annual or other multi-month subscription to any Services and your account is past due for any amounts owed to us, at our option we may suspend any or all Service until payment is received, and/or convert your annual or other multi-month subscription to a monthly subscription. If we convert your multi-month subscription to a monthly subscription, we will first apply the amount you paid for your multi-month subscription to any past due amounts and then any remaining amounts to future obligations. If we elect to offset the amount paid for the remaining portion of a multi-month subscription against amounts past due, you agree to pay, in

addition to all other applicable fees, the Offset Fee set forth below for each month and partial month that the multi-month subscription was previously received.

E. If we use a collection agency or attorney to collect money you owe us or to assert any other right which we may have against you, you agree to pay the reasonable costs of collection or other action. These costs might include, but are not limited to, the costs of a collection agency, reasonable attorney's fees and court costs. If there are billing errors or other requests for credit, you can contact our Customer Service Center by telephone or in writing. You must contact us within sixty (60) days of the time you receive the billing statement for which you are seeking corrections. Failure to timely notify us of a dispute shall constitute acceptance of the bill. Undisputed portions of the billing statement must be paid before the next billing statement is issued to avoid an administrative fee for late payment. All payments for Services must be made directly by you to us. DISH Network shall have no obligation to provide Services for which payment is made by you to a third party.

F. In addition to the amounts due for Services, you agree to pay the fees referenced below ("Fees") when applicable. DISH Network reserves the right to increase these Fees or add additional Fees in the future, in our sole discretion:

Smart Card Replacement Fee	$50.00
Additional Outlet Programming Access Fee (monthly, per receiver)	$4.99
Late Payment Fee	$5.00
Change of Service Fee	$5.00
Duplicate Billing Statement Fee	$2.00
Overnight Delivery Fee	$18.00
Restart Fee	$25.00
Returned Payment Fee	$25.00
Service Access Fee (monthly)	$5.00
Offset Fee	$2.00
Ledger Request Fee	$5.00
Pay-Per-View Automated Fee	$1.00
Pay-Per-View Fee	$5.00

3. CANCELLATION OF SERVICE

A. Your Service will continue until cancelled as provided for herein. Your subscription will be automatically renewed unless you contact us to cancel as provided for in the next paragraph.

B. You have the right to cancel your Service for any reason at any time by notifying us via telephone or in writing at the phone number or address set forth on page 1, above. Please be aware that certain promotional offers have a minimum subscription commitment (usually 12 months) and if you cancel your service prior to the expiration of that commitment, certain early termination fees may apply.

C. DISH Network has the right to terminate your Services at any time without providing notice to you if: (i) you fail to pay your bill when it is due; (ii) we receive confirmation that you have received the Services, or any part of the Services without paying for them; or (iii) you otherwise violate the terms of this Agreement.

D. If your Service is cancelled for any reason, you are still responsible for payment of all outstanding balances accrued, including any applicable Fees.

E. You understand that charges for Services, once charged to your account, are nonrefundable. For monthly subscriptions, the cancellation will be effective at the end of the period covered by the last monthly bill. No refunds or credits will be provided in connection with the cancellation of monthly subscriptions. For annual or other multi-month subscriptions, the cancellation will be effective as of the date the multi-month subscription expires. Because you are receiving a discounted price in exchange for your agreement to pay for your services on an annual or other multi-month basis, in the event you cancel the Services prior to expiration of your multi-

month subscription, you understand and agree that you are not entitled to any refund or credit for the unused portions of the multi-month subscription and that we have the right to retain any prepaid monies as liquidated damages.

4. EQUIPMENT

A. In order to receive the Services it will be necessary for you to purchase or lease certain reception equipment consisting primarily of a DISH Network compatible satellite receiver, and remote control ("Equipment"). You may also be provided with a conditional access card ("Smart Card") that is inserted into your satellite receiver. The Smart Card remains the property of EchoStar Satellite L.L.C. Any tampering or other unauthorized modification to the Smart Card is strictly prohibited and may result in, and subject you to, legal action. You agree to return the Smart Card to us upon request.

B. Smart Cards are nontransferable. Your Smart Card will only work in the DISH Network receiver to which it was assigned by DISH Network. If you report to the Customer Service Center that your Smart Card was lost, damaged, defective or stolen we will replace it, as long as there is no evidence of unauthorized tampering or modification. A replacement fee will apply. In addition, in order to minimize downtime for your Equipment, DISH Network will, upon your request, deliver a replacement Smart Card to you via overnight delivery. Our Overnight Delivery Fee will apply.

C. DISH Network reserves the right to alter software in your DISH Network receiver, and provide content to DVR products, through periodic downloads. DISH Network will use commercially reasonable efforts to schedule these downloads to minimize interference with or interruption to your Service.

D. Your DISH Network receiver contains certain components and software which are proprietary to DISH Network. You agree that you will not try to reverse-engineer, decompile or disassemble any software or hardware contained within your receiver or our Smart Card. Such actions are strictly prohibited and may result in the termination of your Services and/or legal action.

E. For proper operation of your Equipment, DISH Network requires that you connect each DISH Network receiver on your account to a telephone line. For accounts containing multiple receivers, each receiver must be connected to the same telephone line. Failure to comply with this requirement may result in interruption of service.

F. If your DISH Network Equipment is stolen or otherwise removed from your premises without your authorization, you must notify our Customer Service Center immediately, but in any event not more than three (3) business days after such removal to avoid liability for payment for unauthorized use of the DISH Network Equipment. You will not be liable for unauthorized use after we have received your timely notification.

5. LEASED EQUIPMENT

A. If you decide to lease your Equipment from DISH Network, the terms and conditions of the lease agreement shall apply, in addition to the terms and conditions of this Agreement. Such Equipment shall at all times remain the sole and exclusive property of DISH Network and we will have the right, at our discretion, to replace it with new or reconditioned equipment and to remove, or require the return of, the equipment upon termination of Services. None of the equipment shall be deemed fixtures or part of your realty. Our ownership of the equipment may be displayed by notice contained on the equipment. You shall have no right to pledge, sell, mortgage, give away or remove, relocate, alter or tamper with the equipment (or any notice of our ownership thereon) at any time. Any reinstallation, return of or change in location of the equipment shall be performed by us at the service rates in effect at the time of service. You shall not attach any electrical or other devices to or otherwise alter the equipment without our prior written consent. DISH Network shall have the right to make such filings as are necessary to evidence our ownership rights in the equipment, and you agree to execute any and all documents as are necessary for us to make such filings. Upon termination of Services, you must notify our Customer Service Center to schedule the return the Equipment.

B. You shall notify us promptly of any defect in, damage to, or accident involving the equipment. All maintenance and repair of the equipment shall be performed by us or our designees. DISH Network may charge you for any repairs that are necessitated by any damage to, or misuse of, the Equipment.

6. TRANSFER OF ACCOUNT, SERVICES OR EQUIPMENT

DISH Network may sell, assign or transfer your account to a third party without notice to you. You may not assign or transfer your Services without our written consent which will not be unreasonably withheld. We may, however, refuse to allow you to assign or transfer your Services if you lease your Equipment or if your account has an outstanding balance.

7. LIMITATION OF OUR LIABILITY

A. WE WILL NOT BE LIABLE FOR ANY INTERRUPTIONS IN SERVICE OR LIABLE FOR ANY DELAY OR FAILURE TO PERFORM, IF SUCH DELAY OR NONPERFORMANCE ARISES IN CONNECTION WITH THE TERMINATION OF ALL OR A PORTION OF THE SERVICES, THE RELOCATION OF ALL OR A PORTION OF THE SERVICES TO DIFFERENT SATELLITE(S), A CHANGE IN THE FEATURES AVAILABLE WITH YOUR DISH NETWORK DBS EQUIPMENT OR ANY ACTS OF GOD, FIRES, EARTHQUAKES, FLOODS, POWER OR TECHNICAL FAILURE, ACTS OF ANY GOVERNMENTAL BODY OR ANY OTHER CAUSE BEYOND OUR CONTROL. WE WILL NOT BE LIABLE FOR ANY DAMAGE RESULTING FROM LOSS OF RECORDED MATERIAL OR THE PREVENTION OF RECORDING DUE TO ANY FAULT, FAILURE, DEFICIENCY OR DEFECT IN SERVICES OR EQUIPMENT. WE MAKE NO WARRANTY, EITHER EXPRESSED OR IMPLIED, REGARDING THE DISH NETWORK DBS EQUIPMENT OR ANY SERVICES FURNISHED TO YOU. ALL SUCH WARRANTIES ARE EXPRESSLY EXCLUDED. IN NO EVENT SHALL WE HAVE ANY LIABILITY FOR SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES RELATING TO THE DBS EQUIPMENT OR RESULTING FROM OUR FURNISHING OR FAILURE TO FURNISH ANY SERVICES OR EQUIPMENT TO YOU, OR FROM ANY FAULT, FAILURE, DEFICIENCY OR DEFECT IN SERVICES OR EQUIPMENT FURNISHED TO YOU.

B. It is your responsibility to impose any restrictions on viewing by you, other members of your household, or guests, and we shall have no liability to anyone due to or based on the content of any of the Services furnished to you.

8. WARNING AGAINST PIRACY

It is a violation of several U.S. federal and state laws to receive any Services, or any portion of such Services, without paying for them. The penalties for violating such laws can range from imprisonment to civil damage awards of up to $110,000 per violation.

9. MISCELLANEOUS

A. Physical Address/Change of Address. When setting up your DISH Network account, you agree to provide us with the physical street address where the Equipment will be located. A post office box does not constitute a physical address and is not sufficient to meet this requirement. You agree to give us prompt notice of your change of name, mailing address, physical address where the Equipment is located or telephone number. You may do this by notifying our Customer Service Center by telephone or in writing.

B. Notice. If we send you notice, it will be considered given when deposited in the U.S. Mail, addressed to you at your billing address or hand-delivered to you. Our notice to you will also be effective if provided on your billing statement or by telephone. If you give notice to us, it will be deemed given when received by us at the address listed on the first page of this Agreement.

C. Applicable Law. This Agreement, including all matters relating to its validity, construction, performance and enforcement, shall be governed by applicable federal law, the rules and regulations of the Federal Communications Commission, and the laws and regulations of the

state and local area where Service is provided. These terms and conditions are subject to amendment, modification or termination if required by such regulations or laws. If any provision in this Agreement is declared to be illegal or in conflict with any law or regulation, that provision may be deleted or modified, without affecting the validity of the other provision.

D. Other. This Agreement is in addition to any other written agreement between You and DISH Network, including without limitation an installation agreement, lease agreement or promotional agreement. Any and all prior oral or written representations or agreements are superseded by this Agreement and such other written agreements. No salesperson, installer, customer service representative, authorized retailer, or other similarly situated individual is authorized to change the terms and conditions set forth herein. DISH Network may, however, change the terms and conditions of this Agreement in the future and will notify you if that occurs. The terms of this Agreement, which either are expressly stated to survive or by their nature would logically be expected to survive termination, shall continue thereafter until fully performed.

Staying Legal

Title 47, Section 605(e)4, United States Code (U.S.C.) makes it a federal crime to modify this receiver to enable it to receive encrypted (scrambled) television programming without payment of required subscriptions. Conviction can result in a fine of up to $500,000 and imprisonment for five years, or both. Any owner of this receiver who procures or willfully causes its modification is an accessory to that offense and may be punishable in the same manner. Investigative authority for violations lies with the Federal Bureau of Investigation (FBI).

This product may incorporate copyright protection technology that is protected by U.S. patents and other intellectual property rights. Use of such copyright protection technology must be authorized by Macrovision, and is intended for home and other limited pay-per-view uses only unless otherwise authorized by Macrovision. Reverse engineering or disassembly is prohibited.

U.S. Patent No's 4631603, 4577216, 4819098 are licensed for limited pay per view only.

FCC Compliance

The following text is extracted from Federal Communications Commission (FCC) regulations, as of the publication date of this *Guide*. Contact the FCC (see following) or your library for the complete text of the regulations.

Telephone Communication

This equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the back panel of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.

The REN is used to determine the number of devices that may be connected to a telephone line. Excessive RENs on a telephone line may result in the devices not ringing in response to an incoming call. In most but not all areas, the sum of RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company. For products approved after July 23, 2001, the REN for this product is part of the product identifier that has the format US:AAAEQ##TXXXX. The digits represented by ## are the REN without a decimal point (e.g., 03 is a REN of 0.3). For earlier products, the REN is separately shown on the label.

This equipment uses the following Universal Service Order Code (USOC) jacks: RJ-11C. A plug and jack used to connect this equipment to the premises wiring and telephone network must comply with the applicable FCC Part 68 rules and requirements adopted by the ACTA. A compliant telephone cord and modular plug is provided with this product. It is designed to be connected to a compatible modular jack that is also compliant. See installation instructions for details.

Radio Interference

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1.this device may not cause harmful interference, and

2.this device must accept any interference received, including interference that may cause undesired operation.

Modifying this receiver may void your authority to use the equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Refer to *Troubleshooting* in *Chapter 5* for a detailed description of recommended customer actions.

If none of the remedies on the previous page stops the radio interference, you should contact a licensed radio/television technician, your satellite dealer, or call the Customer Service Center at 1-800-333-3474, for assistance.

Signal Strength Present at the Television

The attenuator provided with the satellite receiver will limit the signal present at your television set to below the FCC signal strength limit of 75.6dBuV. If you choose not to install the provided attenuator, you must ensure that the signal strength present at the TV set does not exceed 75.6dBuV.

Connecting to an Off-Air Antenna

In order to receive local broadcast channels, you may wish to install an off-air antenna into your TV distribution equipment. When installing the off-air antenna, you must be careful to meet certain FCC regulations.

There are many devices that allow you to connect your antenna to your in-home distribution system such as splitters, and amplifiers. The FCC requires that the isolation between the antenna port and the network port of your system meet the following:

- 80dB from 54 MHz to 216 MHz, at least
- 60dB from 216 MHz to 550 MHz and at least
- 55dB from 550 MHz to 806 MHz

Measuring the isolation of a device requires specialized equipment. In most cases, it is easier to purchase a splitter or amplifier with the correctly specified isolation from your local satellite television retailer. The above requirements are extracted from 47CFR15.115. For the complete text please visit WWW.FCC.GOV.

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Write the following information in the spaces provided below. You may need to provide this information if you call the Service Center. To get the Conditional Access Numbers, display the **Important System Information** menu (see *Ordering Your Program Packages* on page 4).

Purchase Location Name:	
Purchase Location Telephone Number:	
Receiver Serial Number:	
Receiver Conditional Access Number	
Smart Card Conditional Access Number:	

.

	Remote Control 1	Remote Control 2
Remote Address (SAT Mode)		
Television Code (TV Mode)		
VCR Code (VCR Mode)		
Auxiliary Code (AUX Mode)		

	TV1 (Channel 3 or 4)	TV2
Remote Address (SAT Mode)		